

# ITEMS OF INTEREST.

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VOL. IX.      PHILADELPHIA, NOVEMBER, 1887.      NO. II.

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## *Shots from the Profession.*

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NINTH INTERNATIONAL MEDICAL CONGRESS, WASHINGTON, D. C.  
SEPTEMBER, 1887.

### SECTION XVIII. DENTAL AND ORAL SURGERY.

(REPORTED BY "MRS. M. W. J.")

The Ninth International Medical Congress convened in Washington City, Monday, Sept. 5, 1887.

The first union, held in Albaugh's Opera House, was opened by President Cleveland, and devoted to the usual work of organization, addresses, etc.

The XVIIIth Section had clinics in Operative Dentistry, Oral Surgery, and Prosthetic Dentistry, every morning from 8 to 10.30 A.M., in the Franklin School building, corner 13th and K Streets, and daily sessions from 11 A. M., to 1, and from 3 to 6 P. M., at the Universalist Church, corner 13th and L Streets.

The XVIIIth Section was organized at 3 P. M., Monday, by the President of the Section, Prof. J. Taft, Cincinnati, followed by an eloquent address of welcome by Dr. W. H. H. Thackston, Farmville, Va.

Responses were made by the following foreign members: Dr. B. M. McLeod, Edinburg; Dr. Grevers, Amsterdam; and Dr. Tandlak Sjolberg, Stockholm.

The President took for the subject of his opening address, Factors and Forces in the Development of Dentistry.

This was a concise history of the birth and development of Dental Literature, Standard and Journalistic; Association work, National, State, and Local; its educational system, and its legislative features, forces never in better condition than now for work in advancing our profession. Its literature has attained a high standard, its Association-work was never more appreciated, its educational institutions are continually improving, its legislation is stringent toward the incompetent and the empirical.

As a Profession we are united, with no *isms*, no *pathies*, no factions. Let us press forward to the fulfilment of the high behests before us, fulfilling the most sanguine expectations.

At the close of the address the State Dental Society of Minnesota presented a unique gavel in the shape of an immense molar made of white cement, set in black rubber, banded with pure gold; the rubber emblematic of elasticity of thought, the gold of purity of motives, the cement of the ties that bind all members of the profession together.

The gavel was accepted with great applause.

A vote of thanks was tendered Dr. R. Finley Hunt, of Washington, for his unaided labors in securing the ample accommodations enjoyed by the Section Sessions Clinics, dental displays, etc. Also to the Board of School Commissioners of the District of Columbia for the free use of the Franklin School building.

Dr. R. J. Parre, Cincinnati, then read a paper entitled:

#### CHRONIC PYEMIA OF DENTAL ORIGIN.

This was the record of a large number of cases of chronic pyemia or blood poisoning, some of many years standing, vainly treated by physicians till the dentist discovered the cause in some dental lesion, with suppurative exudations, and distribution of morbid matters, and by removal of cause effected a cure. The long train of symptoms, ulcerations, boils, abscesses, darting pains, rigors, vertigo, night sweats, and even death itself, were shown to be frequently due to that little thing, a tooth, neglected till the pulp has died and putrified; an abscess has formed with constant discharge of pus, absorbed into the circulation, or swallowed and taken up in the digestive process, till the blood is poisoned and chronic pyemia results—the cause often unsuspected for years—but when discovered cured by the forceps. Physicians are beginning at last to suspect the teeth as the hidden cause of many mysterious results, and now send ten cases to the dentist where five years ago they scarcely sent one.

The discussion of this paper was opened by a paper written by J. Frank Lydston, M.D., Chicago, and continued Wednesday morning by Drs. Chace, Portland, Oregon; Barrett, Buffalo, N. Y.; Walker, London, Eng.; Rawls, Lexington, Ky.; Rehwinkel, Brackett, Younger, San Francisco; Genese, Whitefield, Evanston, Ill.; Story, Texas; and others. Dr. Chace exhibited what he called a specimen of pyogenic membrane. Dr. Barrett objected to the term considering the specimen merely a *scab* or cast of the cavity.

Dr. Barrett also objected to the phrase, "Wandering pus corpuscle," saying that pus itself does not travel; it is only conveyed by inoculation.

Dr. Walker (England) expressed his surprise that Dr. Parre should

so constantly resort to the forceps, the practice in England being to save by treatment. He was pleased with the position taken in the paper read by the secretary, attributing the cause to microbes and bacteria, this being the view of Mills, Underwood and other English authors.

Dr. Younger suggested as remedies, nitric acid, for the dissolution of nicrosed bone, from its affinity for lime salts, and corrosive sublimate 2 to 4-1000 as disinfectant.

Dr. Genese said that the solid extract of white poppies, applied null to the affected parts, or dissolved in water as a wash, would be found beneficial

Dr. Whitefield, Evanston, Ill., preferred electrolytic for the distinction of microbes.

After some further discussion of the paper, the subject was passed, and the secretary read a translation of a paper from Dr. E. Brasseur, Paris, President of the Odontological Society of France. His paper was entitled, "*De l'Air en Therapeutique Dentaire.*"—"The use of Air in Dental Therapeutics."

Setting forth the value to the dentist of *hot airs* and medicinal vapors applied by means of the thermo-injector, he said that the sensitiveness of dentine depends on hygrometric conditions, sensation being transmitted through this layer of osmosis. Nerve filaments penetrate the dentine, some points being so extremely sensitive as to cause extreme suffering when touched. These points he terms "true ganglionic centres," and the teeth "perfect organs of feeling," hyperaesthesia being the pathological state. If carbolic acid is heated to  $42^{\circ}$  (centigrade?) in the tube of the thermo-injector, the heated vapor will penetrate the canaliculi, destroy micro-organisms and produce an anesthetic effect, instead of the caustic, escharotic action of carbolic acid directly applied. If the dentine is so extremely sensitive as to render cutting intolerable, the vapor from a mixture of eugenol 10 grs., muriate cocaine 1 gr, veratria 10 centigrams, dissolved in alcohol, tannin 25 and glycerine 8 grains, will be found very soothing applied to the tooth through blasts of heated air. When the dentine is discolored and partially softened, and the pulp nearly exposed, heated air will exhaust all moisture; then treat with bichloride of mercury, followed by oil of cloves, followed by blasts of hot air; varnish the cavity with copal and paraffin equal parts, and place in the bottom of the cavity an asbestos wafer soaked in oil of cloves, and fill with oxy-phosphate. If the pulp is exposed every effort should be made to preserve it alive, and the patient (who, because of the pain, will probably demand its removal) should be instructed as to its value and function.

The cavity must be shielded from moisture, and the septic agents

which follow the presence of saliva, by the rubber dam and the use of hot air to dispel all moisture, and to cause the withdrawal of the pulp if hernia has taken place through afflux of blood,—Rosenthal's pulpine, or a paste of oil of cloves and anhydrous oxide of zinc of the consistency of cream may be applied to the nerve surface and the cavity filled with oxyphosphate of zinc, with an amalgam surface.

If gangrene has already occurred, and the roots are filled with putrescent matter, the use of heated air will enable us to dispense with the interminable dressings of the old methods. Anesthetic vapors of chloroform, ether, or sulphide of carbon, under pressure of hot air, are very penetrating, a small quantity of vapor eliminating a comparatively large amount of water. The use of these vapors, and those of carbolic acid and iodoform, transfers a large number of cases called *incurables* to the ranks of conservatism. When the root canal is cleaned, and the apex opened with a root trimmer, tannin and iodoform can be placed in the canula of the injector, and blows through to the walls of the abscess sac, effecting a cure. A wad of felt is then placed at the apex, and the root filled with gutta-percha. In chronic periodontitis, a douche of hot air at the neck of the tooth penetrates to the affected parts, and affords prompt relief. Blasts of hot or cold air are valuable in diagnosis, affording an index to the condition of the pulp, which in the first stage of disease is sensible to cold only, in the second stage to heat and cold both, while in the third stage heat only is painful.

The thermo-injector is also invaluable for the application of bleaching agents, causing them to penetrate to every portion of the discolored dentine; also for the application of remedial vapors in diseases of the antrum, or in catarrh.

#### OPERATIVE DENTISTRY

was continued Wednesday morning, Dr. Staples (Sherman, Texas) reading a paper entitled,

#### CAUSES OF FAILURES IN FILLINGS.

The one great cause of failures being lack of thoroughness beginning with the tutor in the selection of materials out of which to make dentists, and continuing all through the career of the dentist himself in his diagnosis of the case, or in his selection of materials, or in the preparation of the cavity, or in his work at different stages.

Dr. Parramon (Hampton, Va.) read a paper, entitled,

#### SEPTIC SPONGE.

After describing the work of the corpuscles in building up tissues, the changes in development due to environment, protection, etc., the effects of irritation, in inflammation, increased flow of blood to the parts, with increased supply of material for repairs, he gives the re-

sults of his experiments during six months in using septic sponge as a pulp capping in cases of actual exposure, as an aid to nature in the deposit of secondary dentine. He also suggests its use at the apex of the root canal for the same purpose. This paper attracted marked attention as something new, to say the least, and worthy of attention, though it still lacks the essential test of *time*.

Dr. Geo. H. Winckler (Augusta, Ga.) read a paper entitled,

#### SOFT GOLD FOIL,

claiming for it superior advantages in the rapidity with which it can be worked, saving both the time of the operator and the strength of patients, especially frail women and children; in its perfect adaptation to the walls of the cavity, and the protection afforded to soft teeth; in doing away with the rubber-dam, so objectionable to many. He then describes the classes of cavities in which soft foil is especially advantageous, and those in which soft and adhesive gold should be combined. He uses soft foil in pellets, folding a square piece on itself, and then across, making a mat which he crumbles into an oblong pellet, pointed at one end. For compressing crown cavities in lower molars, plugging forceps are used, with a pad under the jaw, and the other beak with a condensing point on the gold in the cavity. In some cases he utilizes the powerful pressure of the muscles of the jaw by having the patient bite on a pad of block-tin soldered to the beak of the plugging-forceps.

#### OPERATIVE DENTISTRY DISCUSSED.

Dr. W. H. Morgan took issue with Dr. Marshall on the point of new amalgams being an improvement on the old ones, being of the contrary opinion. In reply to Dr. Staples, he thought "form dentistry" the poorest he had ever met; education, and not nature, made the man. To which Dr. Staples replied that to educate was *to draw out*, and that what was not in a man could not be drawn out of him, that he must be born with certain capacities, etc.

Dr. McKellops asked Dr. Morgan what about John Hunter and others who had no opportunity for dental education?

Dr. Morgan replied that he was not there when they were around and could not say.

To Dr. Winckler's paper he said that much could be done with cohesive gold that could never have been done with soft foil, and the fact that the profession had so largely abandoned soft gold was proof that it was not the best.

Dr. Storey, (Dallas Tex.) said he never saw a tooth filled with soft foil that could not have been better done with cohesive gold. He had no success in capping pulps, but he should certainly try Dr. Passamore's method, even at the expense of his patients' feelings.

Dr. Beach (Clarksville, Tenn.) said that the true middle ground lay in the use of both kinds of gold and other materials, according to the case in hand. The best practitioner is he who saves most teeth; the man who confines himself to any one material deprives himself of many advantages and must lose many teeth that he might otherwise save.

Prof. J. B. Hodgkin (Baltimore College) read a paper entitled

#### AMALGAMS,

dwelling on the making and working of amalgams and the very curious and unexpected results encountered in the mixing of different metals, two soft metals making a very hard compound, made still harder by the addition of a still softer third metal, etc., the addition of mercury making a still more complex crystallization. In concluding his paper Prof. Hodgkin offers a Norfolk oyster supper for a case of "two proximal cavities in molar or bicuspid, filled with amalgam, of five years standing, that are not leaking, but are still preserving the teeth." Also the same offer for an "amalgam filling next the enamel, with the dentine gone, still preserving a tooth after five years," maintaining that in contact with amalgam, enamel becomes brittle and loses its integrity.

At the conclusion of this paper, adjourned to 8 P. M., Thursday, the day having been set aside for clinics.

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#### A NEW LOCAL ANESTHETIC, STERNO CARPINE.

DR. CHAS. A. MEEKER, NEWARK, N. J.

Unlike most anesthetics Sterno Carpine is not primarily the product of the chemist, but an accidental discovery due to a veterinary surgeon by the name of M. Goodman, of one of the Parishes of Louisiana; who, having had occasion to poultice a horse's fetlock and having no means at hand, gathered promiscuously some leaves and with hot-water applied the mass to the inflamed fetlock. He was astonished to find on making a free incision that the horse experienced no pain. In a similar case, with leaves gathered from the same tree and used in the same way, the same effects were noticed.

This tree, called the tear or blanket tree, grows abundantly in Feliciana Parish in Louisiana. It grows to the height of forty feet, and to a diameter of about eighteen inches, with a spread of foliage of thirty-five feet. It grows in clumps and singly. The leaves resemble those of the acacia. The bark is smooth and, from the ground up, the tree is furnished with clumps of forked spines or thorns, the parent spine springing up at right angles from the trunk. It bears pods as fruit, ten inches long, flat and slightly curved, containing seeds and a viscid juice. The spines are tough and highly polished; the wood is extremely tough.

To Dr. Allen M. Seward, of Bergen Point, N. J., is due the credit of isolating the alkaloid and placing it before the dental and medical profession. He concludes that the anesthetic property is in the alkaloid. A few drops of the 2 per cent solution produced anesthesia, in the cat's eye. Several other experiments were made, all tending to prove the alkaloid possessed true anesthetic powers. From the similarity of the leaves to acacia, Dr. Seward named it Steno Carpine. For much information I am indebted to the experiments made with the alkaloid by Dr. J. Herbert Claibourne, reported in the *New York Medical Record*.

By the instillation of two drops of the 2 per cent aqua solution, in the eye of a rabbit, in five minutes the corneal epithelium could be seized and abraded without pain. There was dilation of the pupil and anesthesia lasted forty minutes. The cornea presented a dry, glazed appearance.

A long series of experiments is detailed in the *New York Medical Record*. It was first used on the human subject, on Dr. Allers, of Plainfield, N. J. Three drops of a 2 per cent solution were placed in the left eye. At first it stung a little and brought slight tears. In five minutes complete anesthesia was produced, lasting for nearly thirty minutes. Several other experiments were made on Dr. Allers without unpleasant symptoms.

Dr. Claibourne has had complete success in a number of cases which you may find detailed in the *New York Medical Record* for August.

Through Dr. W. H. Mitchell, at the July Session of the New Jersey State Dental Society, I purchased a small vial of the 2 per cent solution, and have used it where I thought it would be advantageous in dental surgery. I doubt its efficacy in producing anesthesia in carious teeth while excavating. I have tried it faithfully under the most favorable circumstances, in all varieties of teeth; hyper-sensitive, the soft chalky, medium hard, and dense. With the latter it has had no effect. In the others probably it is like all our experiences with cocaine and similar local anesthetics, unreliable, particularly where we most desire success. I can only account for this in the idiosyncrasies and temperaments of different people. I have used the utmost care, placing on the rubber dam, and having the tooth as dry as was possible with the use of hot air. It may be a stronger, say a 10 per cent solution, will produce sufficient anesthesia to excavate painlessly.

To those who were in Dr. Heitzman's laboratory where our studies of the specimens were made under 1200 diameter microscopes, it would seem almost impossible for any medicament, unless exceedingly concentrated, to be carried through the infinitesimally minute

tubes of the teeth. I fear the local anesthetic for the painless excavation of carious teeth, is still in futurity.

To Steno Carpine I can give decided praise for producing local anesthesia on the mucous surfaces. In several abscesses and necrosis on the upper and lower maxillary, by syringing four or five drops through the external opening or sinus, I have been able in a few minutes to cut through with a medium sized bur to the apex of the root, and also to cut diseased portions of the alveola with a minimum of pain. I think here it works more rapidly than cocaine.

#### PLACING GOLD CROWNS.

DR. H. W. HOWE, LAWRENCE, KANSAS.

I have never been thoroughly satisfied with the manner in which gold crowns have been cemented to the roots. Of course we make the ferule or band fit as closely as possible, even to driving it on. But when we put them home to stay, are we *sure* the enlarged nerve canal is well filled around the pin or post? Are we sure there are no air bubbles between the root and cap? Are we sure our cement will not deteriorate at the edges of the inverted cup under the gum? Not quite sure. Well, I try to be sure that my caps and crowns are. I leave a vent hole in the crown, but fill my cap, as well as the stump, full of cement before I press or drive the work home. I have my rubber dam adjusted and put a cement of dissolved gutta-percha *round* the stump before I put the cap home for good; thereby being assured that my joint is gutta-percha instead of phosphate of zinc, which we all know is preferable. With the vent hole for the surplus I can use stiffer cement than I dare to without it, afterward I can fill that hole, and am satisfied I can make better work than I can with thin cement expecting the pressure of putting home my work to drive out the fluids through a joint which I deem absolutely necessary to have so perfect. I know it is generally thought best not to have the vent, but I use it and am satisfied with it. I have never been satisfied with porcelain faced crowns (anterior teeth) till I tried making my posts into tubes, thereby allowing the surplus cement to go over and out through this hollow post when finally put on.

Reliable operators have told me that a pin or post attached to the crown was not to be trusted, that they would "come home to roost," but I have the first one thus handled to give trouble. But when I used the thin cement, no vent, no gutta-percha and solid posts, I was sometimes bothered with unsatisfactory results. With the rubber dam adjusted and the gutta-percha cement in place, root and cap filled with oxy-phosphate, I carry it to place as far as the clamp or rubber dam, quickly remove the clamp or dam with the disengaged hand and send it home. Try it.—*Western Dental Journal*.



## NITROUS OXIDE.

DR. A. M. LONG.

Who does not remember the great glad hope that was associated with the word nitrous oxide when discovered? But we were buoyant only for a brief time, for the lurking poison in it sent it almost beyond our grip as an anesthetic. How with bated breath we read of its baleful influence, spasms of the larynx, spasms of the respiratory muscles, continuing for days and sometimes for weeks; vomiting combined with syncope; a deep sleepy condition, as if the patient had taken a powerful narcotic. Headache often severe and lasting from one to four days. Strange sensations or absence of ordinary sensations. In some cases the asphyxiated appearance was strangely marked, the face becoming black, or of a dark purple color. Sometimes the breathing was shallow, and rapid, and puffing, very common in nervous females, and occurring soon after the inhalation had commenced. This accompanied often with screams and nervous twitching. A little later in the administration we find the patient resisting respiration, in which case the breath may be held five or six seconds; and then again the patient may be gasping as for want of air, and the appearance decidedly alarming. Allow me to suggest here if any of these symptoms should present themselves, the dentist should examine the gas so as to be sure of purity, and he should thoroughly examine the apparatus and the inhaler to see that every thing is in perfect working order, that no air leaks through and into an imperfect hose or tubing, and that the inhaler valves are free and in perfect working order. The question naturally rises, what has been the cause of these symptoms? I will not attempt to explain in detail all the reasons, but allow me to present what may possibly be the chief cause of a few. The manufacturing of nitrous oxide was then crude compared to the present method, and the administration was then made without thought or skill. It is like everything else from which we hope for success. First, the laws which govern them must be understood. By the slow process of improvement the deadly poisons have been eliminated, as the liquefying of nitrous oxide is a safeguard against nitric oxide, which requires a much higher pressure to liquefy than nitrous oxide.

Next to pure gas, a perfect working apparatus and the inhaler are essential to the successful administration. The tube on the gas apparatus and the inhaler must be large enough to admit of a free flow of gas, so that nervous patients as well as those with weak lungs can breathe through it without the least exertion. In the construction of the inhaler a few primary and essential principles must not be overlooked. The diameter of the inhaler must be large enough for the passage of the breath as freely as if no covering was over the nose and mouth. The

valves must be light and without hing or spring so that the slightest pressure from exhaling and inhaling will open and close them. The valves opening must be large so that they do not in the least possible degree retard respiration. This is more important with the exhaling than the inhaling valve. Bear in mind that ordinarily the expiration is made in less time than the inspiration, and it will not be difficult to realize that the opening of the exit valve should be larger than that of the inhalent. Then again the gas receiver can be so constructed as to force the gas through the inhaling valve and naturally aid the patient, but this cannot be done with the exhaling valve. And right here it may be well to say that there must not be allowed any obstruction in the gas channel, and it should be large, without break or curve. The valves should be close to the mouth, so as to receive full pressure from respiration.

Few people can realize how easily the respiration is impaired. Persons suffering from asthma, angina pectoris, and other conditions, claim that if they sit within two feet, facing a wall, that it causes a strong feeling of suffocation. This I mention to impress on the profession how important it is that we give attention to the expiration, and especially while we are dealing with an agent that is lighter than air.

The gas receiver must be so sensitive as to respond to the least possible respiration, and it must continue throughout the entire operation. There must be no hindrance whatever, and especially when the patient becomes partly stupified, the least hitch or any abnormal labor of the lungs will stop them then and there, and the effect will be incomplete. The patient must not be crowded in the least, nor must he be expected to labor in obtaining it. The receiver should stop with the least pressure of the breath, and start its downward march, at each inhalation, without effort from the patient.

The receiver should supply gas to the patient by forcing it through the long hose into the inhaler, and there be ready for the patient to receive it. By using such an apparatus as I have just described the operator may feel that half the battle is won; then, by using pure gas and following the rules that I shall endeavor to give, the operator need not expect to see in his patients lividity of complexion, nor have them drift into dreams of the most frightful character, and become unmanageable in their excitement; neither may he expect to see many other alarming symptoms that rise, and are so generally spoken of in the journals and text books. It has been thoroughly proven that nitrous oxide will not support life, yet I am led to believe that fully two-thirds of the alarming symptoms that have been recorded can be directly traced to improper administration.

I will here give an extract showing how one of the professors in

the Ohio Dental College was impressed the first time he witnessed the administration of nitrous oxide. He said to an associate: "I have been unfavorably impressed with nitrous oxide, and learning that you are pleased with it, I have concluded to get more light." An engagement was made, and he brought a delicate lady patient to have several teeth removed. The success was all that could be desired, and after the operation, said he: "I took my little boy to a nitrous oxide office, and he inhaled the gas from a rubber bag, and became very dark in the face, as dark as if he had an epileptic seizure. I did not like it." Many dentists who are not familiar with gas imagine that it is too transient to last longer than to extract one tooth; this is wrong. It intensifies the disposition of the person who takes it. A man of pugnacity will become more belligerent for the moment. Hilarious persons are exceedingly jolly. Nervous people are apprehensive of danger, and cannot be brought under its influence, and for these reasons if an anesthetic is required they prefer chloroform or ether. The frequent deaths caused by chloroform and ether as anesthetics have often been impressed on us. Should we, as a profession, having the entire control of our confiding patients who place themselves in our care for treatment, use so deadly and so treacherous an agent as chloroform for extracting teeth? No security against its fatal tendency is known. No reliable rules by which to select a subject exempt from its deadly influence; no antidote sufficient, or means of resuscitation deserving of much confidence.

When I can take a man or woman, old or young, who comes to my office, free from liquor, and self-possessed and composed, and confident that they are not going to be hurt, and give them gas without any struggle, and have their teeth extracted without pain, and when I see them within ten minutes go about their business as though nothing had happened,—when I see this day after day, year in and year out, I cannot refrain from the belief that nitrous oxide has a legitimate place in dentistry.

The question, Are there any known conditions of the system in which nitrous oxide should not be given? Should we give it to patients who suffer from acute rheumatism and heart trouble, such as fat heart or damaged valves, epilepsy, St. Vitus' Dance, disease of the brain, lungs, and kidneys? Are these safe patients for the administration of anesthetics? Our experience informs us that it is no barrier to this agent, if a plentiful supply be given, and the patient is not asphyxiated long before the gas has time to produce anesthesia.

This is a common occurrence when giving gas from the bag, and still worse from the long hose that has been attached for an improvement over holding it in the lap, for it requires force to draw air or gas through a long tube.

If there should be fluttering of the pulse, or irregularity, or running faster than normal for the age of the patient, or the color of the face should indicate low temperature, and the patient appear to be low in vitality, be cautious. Though under these manifestations of abnormality nitrous oxide may, in many instances, be administered with comparative safety, while the indications show that neither ether or chloroform should be given.

Here are an unlimited range of subjects presenting themselves for our consideration. The youth with his vigorous and strong circulation, even in health, is different from the adult, with his steady-flowing arterial rivers; and a still greater difference in the senile man, sinking the flood of his once active heart into the sands of old age; say nothing of the mental conditions of different subjects, and at different times. Look you, even in health, that you deal not with these classes alike. The youth may hold his breath for two or three seconds with no alarming symptoms, yet in old age, if this should go on unnoticed for a few seconds, it may be the closing scene of a precious life.

The operator should allow nothing to distract his attention from his patient while administering an anesthetic, and if any alarming symptoms should occur, such as stopping of breathing, or loss of pulse, the patient should have immediate attention. The operator must not lose his own balance, but proceed with all known means of restoration. If the breathing ceases he should thrust his forefinger low down into the throat, and draw the tongue forward and hold it. This will exact some motion of the throat and mouth, and may be this only is necessary. If this should fail then slapping the chest with the hand, or holding a wet cloth to the face, applying ammonia to the nostrils, or the vapor of amyl nitrate, elevating the limbs and rubbing the extremities toward the bodies, also raise the feet and lower part of the body higher than the head. Expand the chest by pressing the sides, and thus induce breathing if possible. Apply the battery and work vigorously, for moments of time are precious.

Before closing, allow me to state in brief what may yet seem essential to success. First, get the full confidence of the patient. The patient should be as much as possible in a horizontal position, for these reasons: the heart, being the medium of force in the circulation of the blood, and as it is located near the center of the body, and the laws of gravitation hold good with the course of blood from the arteries in the upper portion of the body and the veins in the lower portion, hence we must recline the body to equalize the force, to overcome gravitation, and assist the diastolic action of the heart when it becomes weakened by anesthesia. Instruct the patient to loosen the clothing, especially around the neck and waist, and avoid tight-fitting shoes and

gloves, and in fact lessen every burden of resistance to the physical force. Place a large rubber apron around the neck and over the lap of the patient, to prevent the clothing from being soiled, then by kind and cheerful words allay fear and gain the confidence of the patient in your ability to administer an anesthetic. Allow the patient a small quantity of water, so as to moisten the mouth and throat, as it is in its normal condition, for the salivary glands are apt to be inactive while the patient is laboring under the excitement of an operation.

Examine the teeth, and place the jaw or face opposite the teeth to be extracted. An assistant should stand at the chair ready to hand forceps and help as needed. See that every thing is ready before operating, as a few seconds occupied in finding an instrument may result in failure. Everything being ready, instruct the patient to take five or six inhalations, and as rapid as possible, say five times as fast as usual, keeping at this time the inhaler away from the face. This full and rapid breathing familiarizes the patient, and gets him accustomed to fill the lungs; but the main object is to change residual air in the air cells of the lungs. While the lungs are empty place the inhaler over the mouth and nose, and allow the patient to take two or three inhalations of nitrous oxide, after which remove the inhaler, and allow the patient to take about the same amount of air before replacing the inhaler. The object is to accustom the air cells in the lungs to the gas gradually. From this on throughout the operation the patient should be instructed to breathe as naturally as possible.

As soon as the operation is performed the nostrils should be moistened with aqua ammonia. This will not only stimulate the nerve of the nasal membrane, but it will neutralize the carbonic acid in the air cells of the lungs. The vapor of the amyl nitrate is also strongly recommended. The patient should not be kept in a state of semi-consciousness longer than can be helped, and even if they have so far recovered as to be able to speak, a small amount of the vapor of ammonia will be beneficial.

Between the stages of reasoning and complete anesthesia the apprehensions of danger from gas and the dread of pain may produce a nervous shock, if still other teeth are to be extracted; therefore it can be easily understood why the operation should stop at this point, allowing the patient to revive to full consciousness. A bowl and sponge should be in reach, and as soon as the teeth are extracted the head of the patient should be inclined forward, so that instead of the blood running down the throat will it run into the bowl.

Lady patients should be waited on by a lady assistant after an operation. A third person should always be present with any anesthetic.

The mixing of fluid with nitrous oxide has been strongly condemned by professional men, both in this country and in Europe. The Clover apparatus for administering ether and nitrous oxide gained only a limited reputation, and soon went into disuse, as far as I can learn of its history. Here the operator relies on the ether to produce anesthesia, using the gas to hasten the narcotizing effects. From my personal observation I cannot speak in favor of ether, allowing the quantity to be much or little. Its effects are too irritating. But I have found from six to nine drops of the best alcohol and chloroform in equal parts, thoroughly vaporized in ten gallons of gas, to be a wonderful improvement in prolonging anæsthesia, and yet while it prolongs anesthesia it does not change the effects of nitrous oxide, and I have as yet never seen any bad results.—*Dental Register*.

### WHAT IS EXPECTED OF A DENTIST.

DR. G. W. ADAMS, BRISTOL, PA.

I extracted the right lower first molar for an Irishman the other evening, and charged him the usual fee, twenty-five cents. Early next morning he appeared saying he had been troubled all night with bleeding. After he had washed his mouth and his face, I cleared the cavity of the clot and filled it with a little *ferri subsulph.* on cotton; placing a large compress of muslin over this, I told him to close his mouth and keep quiet for two hours. It proved satisfactory. But I got no pay for it, not even a "thank you." He paid me twenty-five cents for "pulling" the tooth, and that was expected to cover all subsequent treatment, if any should be required in the case.

This is all wrong. An M.D. wouldn't be subjected to such injustice. If one dose of medicine at fifty cents had not proved sufficient, the patient would have returned for another, and willingly have paid fifty cents for that, and he would have considered it perfectly right. But because I am not a doctor, simply a dentist, I must buy medicine and apply it for nothing. I say it is all wrong. It required as much education and skill for me as for a physician to arrest that hemorrhage. Then why should I not be paid as well for it? Simply because of the false education of the people. Dentistry is not considered a *profession* by most people. By many, a dentist is classed with mechanics and not awarded the title of doctor.

[Friend Adams, do you not "lend a helping hand" to the community's low estimate of your business, by charging hardly more than a mechanic's price for your work? If you do your other work as low in proportion as extracting a tooth for twenty-five cents, "as the usual fee," you must not wonder at being classed with mechanics, and not esteemed and recompensed as a professor of a learned art. Perhaps this is as high as your profession has risen in Bristol; if so, "more's the pity."  
—Ed. ITEMS.]

## THE TREATMENT FOR AN ABSCESS.

PROF. L. C. INGERSOLL, IN HIS DENTAL SCIENCE.

Form a free opening into the pulp chamber, pass a drop of warm water into the root canal on a few fibers of cotton, place in the mouth of the cavity a stopping of soft vul. rubber, shape a stick of hard wood to use as a piston, then force the rubber well into the pulp chamber. This will free the abscess sac of pus and expose it more freely to the action of medicines. If the apical foramen proves not to be open, free it with a fine hair broach; next use carbolic acid full strength, in the same manner as the water, forcing it through the root and out through the sinus on the gum; follow the same treatment every three days so long as any pus is seen. If none appears after the first or second treatment, cease the caustic treatment and use wood creasote, or oil of cloves, for future treatment. A cure is indicated by a restoration of the bright pink color to the gum, the firmness of the gum tissue, a tendency to rapid healing of the sinus, and a freedom from pain on percussion.

The design of the caustic treatment is this. The abscess sac is a new formation of the nature of a tumefaction, and needs to be destroyed; such growths, when accessible, should be excised at once, as the most rapid and successful cure. The inaccessible location of an alveolar abscess renders it more practicable to destroy it by caustics.

It is not wise to fill sooner than ten days or two weeks after the supposed cure, thus avoiding mistakes. In the meantime using mild antiseptic treatment in the canal and keeping it temporarily stopt.

A root under some circumstances of abscess may be filled immediately after the first treatment, with *some* certainty of success, provided it be of recent formation, having its first discharge of pus; but there is more certainty in less haste.

Carbolic acid is a good remedy. It shows best on the surface just what you have done, and makes sure work as a caustic. Creasote and tinct. of iodine, equal parts, will serve a good purpose and sometimes accomplish results where carbolic acid fails. No *one* medicine is sure in every case.

The treatment of a *forming* abscess must be first prophylactic. If this fails, and resolution does not take place, use means to secure a rapid formation of pus. For prophylaxis, use a solution of iodoform, being cautious not to cause irritation about the apex, with the broach, and apply a strong capsicum plaster on the gum; alternate the dressing in the root with creasote or other anti-septic stimulant. To force the formation of abscess, apply to that part of face moist heat with cloths wrung out of hot water; a mild dilution of capsicum applied both to the gum and face will serve a good purpose, but artificial heat

is one of the most effectual means. To relieve the pain of a forming abscess use equal parts of wine of opium and tinct. of aconite, or any other anodyne liniment.

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### SHALL WE MAKE TEMPORARY PLATES.

“How soon after having my bad teeth out can I have a plate?” This is a question patients frequently ask in every dental office. If the patient is too poor to pay for more than one plate, what shall we advise? Shall he wait eight to twelve months without any teeth? It seems to me life is too short to make such a practice advisable. Are seventy years so many that any man can afford to throw away one of them? And what is life worth without teeth? Then, again, my experience in making plates for those who have been edentulous a long time, has convinced me that it is exceedingly difficult for such patients to become accustomed to a plate even though it be a model of perfection in workmanship. The patient has grown accustomed to having the tongue and lower jaw too near the upper maxilla and too far forward. By long use in attempting to chew on the gums, they have become hardened so that mastication is possible with some degree of comfort; and finally there is blindness to that homeliness the loss of teeth has caused. Also the plate is much in the way, and exceedingly uncomfortable, and the habit of going without teeth requires much effort to overcome. Finally, therefore, if new teeth are obtained all manner of fault is found with them, and publishes to the world his troubles, implicating his dentist, however well he has done his work.

It is not uncommon for such people to go from one dentist to another getting plate after plate, till finally they conclude that dentists are humbugs. And then they give up all hope of ever having any teeth again, and settle down to “gumming it” for the rest of their life. Is it not better every way to avoid all this misery for our patients and loss of “fair renown” for our profession by making the plate within a reasonable time after extracting?

Of course all mouths do not heal with equal readiness, hence the time before taking the impression should vary somewhat. It has been my practice to advise my patients to have a plate made in from one to two months after extracting. I find they can generally be convinced that this is best. I tell them such a plate will fit for a year and perhaps longer, and I agree to make the plate over for half the original price at any time, if it should become necessary because of absorption of the gums and alveolar processes. In the last three years and a-half I have not had a single occasion to remodel one of my plates at half



prices. I know that many of my plates made two to four years ago, only a month or so after extracting, are still doing good service and giving much satisfaction to my patrons. If they have lasted this long, may they not last till the wearer is laid away? I have recently begun (as an experiment) taking an impression for partial plates as soon as the hemorrhage incident to extracting ceases, and inserting the plate within twenty-four hours. Query: How long on the average can this latter class of plates be worn with comfort?

Detroit, Minn.

C. V. DJOLITTLE, D.D.S.

[That is the trouble with these "temporary" plates,—they are so often worn longer than they should be. Of course they do not fit after the full absorption of the process, yet patients "make them do," to avoid the trouble and expense of a permanent plate.—ED. ITEMS.]

### TEETH CONTACT, AND THE EVILS OF EXTRACTING.

DR. J. B. DAVENPORT, OF PARIS, IN N. Y. ODONTOLOGICAL SOCIETY.

While it is not pretended that the teeth can usually be saved by any easy method, and without care on the part of the patient, yet, notwithstanding the old doctrine that "contact is always dangerous," I am fully of the opinion that they may be more easily saved by the preservation of their normal functions; and to do this we must imitate the form of perfect teeth, and their manner of support by *firm contact* with one another, however "dangerous" that may *seem* to be.

If any *one* tooth be extracted from the ideal dental arches, with their *perfect articulation* (excepting this *one* be from among the six lower front teeth), there will occur no important change in the position of the other teeth; the space will remain nearly the same, as the remaining teeth will be held in position by occlusion with the teeth of the opposite jaw.

If one of the *lower incisors* is lost, contact will again be secured by flattening of the lower arch, with the appearance of over-prominence of the upper front teeth; or the entire lower arch will, because of loss of central support, drop inward and become narrower. This will be accompanied by a similar narrowing of the upper arch, and the forcing forward of the upper incisors and cuspids.

The contraction of the lower arch is a typical illustration of what may follow the extraction of a lower incisor.

The upper arch is also contracted, no doubt partly because of the contraction of the lower arch—while an excessive projection of the upper front teeth has been prevented, owing to the loss of the upper lateral incisors.

Exteriorly the articulation may be good excepting for the "jumped bite,"—*i. e.* when the lower teeth strike one cusp too far back of their normal position.

The same seen from the inside of the mouth, shows how the inward tipping of the teeth has separated their grinding surfaces, rendering mastication impossible for that side of the mouth.

But now let us suppose a more common case, viz., that of the extraction of all the first molars from the same ideal mouth. What happens will vary much according to the time at which it is done.

The extraction of the first molars at any time previous to the appearance of the second molars is the removal of at least one half and often a much greater proportion of the entire grinding surface of the teeth, and the health of the little patient may be undermined from inability to properly chew its food. If the first molars are lost before the eruption of the bicuspid, the bite will be shortened, and the lower incisors will drive harder than normal against the upper incisors, thereby forcing the latter forward and apart. This result will be greatly favored if the deciduous molars, as is often the case, are badly decayed, or lost before their proper time. The bicuspid finally come down in a straggling sort of a way, generally too far back, and too far in toward the cavity of the mouth. The teeth are apt to get caught in these false positions by the articulation, and the arches are left permanently deformed. The bicuspid are likely to be variably rotated on their axes, and here and there spaces will be held open during life. The lower incisors will have a tendency to tip backward, owing to the too hard driving against the upper teeth. This finally causes a sharp angle and overcrowding in the lower cuspid region. Therefore, extraction at this time is likely to cause contraction of both arches, over projection of the upper front teeth, flattening of the lower incisors, and irregularity in the lower cuspid regions. The second molars will touch the bicuspid, and soon all spaces will close up where not prevented by a faulty articulation. The molars may *appear* to articulate fairly when viewed from the outside.

In some cases of great overcrowding with irregularities, it seems as though more was gained by this early extraction than if it were done later; but we must remember that time during the period of development is a great regulator of teeth; so it becomes a question whether we accomplish more even in the most favorable case than to contract the arch and do other harm.

If the first molars are extracted at about the time of the appearance of the second molars (the lower perhaps a few months earlier than the upper), probably the least injury will be done. At first the *bicuspid, if well formed and articulated, will drop back together*, leaving a space back of the cuspid; but if not well articulated, they, too, may separate a little. The second molars soon touch the bicuspid, sometimes without much forward tipping, and the articulation from the

outside appears good, and the case is considered a success. But if you will examine the articulation from the inside, you will usually find the inner rows of cusps do not articulate. This is not surprising when we reflect that after the arch is broken its sides contract; and this means the molars have leaned in a little more toward the cavity of the mouth, causing the inner rows of cusps to separate, while the outer rows remain in contact. Any little drooping back and apart of bicuspid and cuspid will be overcome in a few years (if the arch were normal), either by a return to their former positions, or by narrowing and flattening of the anterior portion of the arches, and will end in contact all around.

This I believe to be the best possible result after such extractions, it being nearest to that of nature's unbroken arch.

Unsupported teeth are sure to move till support is secured by contact or by friendly articulation. Secondary contact, though never so good as primary, is the best we can hope for after unnatural spaces have been made in the dental arch, for the gum is again protected and the teeth supported.

The upper molars always rotate during their forward movement, the buccal portions moving fastest, causing the new articulation to become a mere hit or miss (mostly miss), owing to the changed relation of the natural planes of articulation. This cannot be otherwise, when the principal grinding surfaces have been removed, leaving bicuspid to antagonize with second molars and cusps and indentations twisted out of their just relation.

Never after the eruption of the second molars can extraction of first molars be considered other than a misfortune.

After the first molars have been extracted the enormous strain of mastication is brought to bear on the unsupported second molars, whose yielding sockets allow them to tip till they touch the bicuspid. The time required for this result varies from a year or two in young persons to several years, after late extraction of strongly set teeth.

The upper molars rotate on their axes and tip forward till the outer corner of the second molar touches the middle of the distal surface of the bicuspid, while the anterior proximal surfaces of the third molars rest in the concavity of the distal surface of the neck of the second molars. The articulating surfaces of each, reduced to one or two points, do not permit of any proper grinding movement. During the time occupied by the closure of the spaces mastication has been difficult, for added to the defective grinding surfaces is the great discomfort caused by the irritation of the gums by hard substances, and by the strain on the sockets of unsupported teeth. The changed relations of the second and third molars renders their cleansing difficult, and when decay occurs, as often happens, it is most difficult to treat, especially when it appears in the mesial surfaces of the third molars.—*Cosmos*.

### "CONTACT IN TEETH."

DR. E. L. HUNTER, ENFIELD, N. C.

DR. T. B. WELCH:

EDITOR ITEMS:—I notice in the ITEMS for September: "I do not think in the city of New York any old man can be found with a good set of teeth, unless those teeth are in contact." DR. CADMAN.

Again.—"We do not recall an exception to the rule that separation, not contact, promotes the longevity of the teeth." DR. WELCH.

We assume that Dr. Cadman was referring to a mechanical, not a natural, separation, since the latter is rather unusual, while the former is frequent. There can be no legitimate comparison between them in estimating future pathological conditions, as in one case the teeth are completely encased in the enamel, while on the other it has been more or less removed from two sides.

Teeth separate, when spoken of in contradistinction to teeth in contact, generally means teeth where the contact has been removed from the stronger to the weaker part of the teeth; natural, not mechanical contact is the prevailing order, and affords separation when separation is most needed and contact when contact is most needed.

Such gives the most good with the least harm. I think no one will deny that teeth naturally apart may have a greater immunity from decay than those in contact; yet the mere presence of decay does not seem to be all of the evils which may beset, nor its absence all of the good designed by nature. The citing of a single case cannot be proof of that which needs for its support both statistics and sound principle. *One* swallow comes in the summer; he does not make it.

A man, by reason of *strength*, lives fourscore, while the law is threescore and ten. So far as my own observation goes artificial separation certainly affords no *greater* immunity from decay than such condition, as is left in absolute contour work, besides much weakening the teeth. Except in the rarest instances, they will wear and chip, become stained through exposed surfaces of dentine and, in time, become a much demoralized looking set of teeth.

I probably fail to understand Dr. Welch, as I cannot see how in this day and generation he could entertain the ideas which I impute to him.

#### REMARKS BY THE EDITORS OF THE ITEMS.

1st. How convenient it is to argue when one is allowed to "assume" his own position. You assume Dr. Cadman does not mean what he says, therefore Dr. Welch's criticisms are misplaced. "I can help Dr. Cadman by an addendum; then I can champion his cause, thus: 'I do not believe in the city of New York any old man can be found with a good set of teeth, unless these teeth are in contact,'—*that is, if*

*the separation has been made by mechanical means.*" But are you sure Dr. Cadman authorizes your addendum? If not, your whole article is founded on a false premise. Dr. Codman certainly does not say what you put in his mouth.

2d. You say, "I think no one will deny that teeth naturally apart may have a greater immunity from decay than those in contact." We think so, too. But suppose they are brought apart by *mechanical* means? *Then* are they more liable to decay than when in contact? No; for you tell us the reason teeth artificially separated are more liable to decay is because the enamel "has been more or less removed from two sides." If separation is made without loss of enamel *then* we have this proposition, "I think no one will deny that teeth mechanically separated, if not injured by loss of enamel, may have greater immunity from decay than those in contact. Again we agree.

3d. But you say, "Teeth separate, when spoken of in contradistinction to teeth in contact, generally means teeth where the contact has been removed from a stronger to a weaker part of the teeth. How can teeth be considered separate when only "their contact has been removed from a stronger to a weaker part of the teeth."

4th. In the following statement you assume a position not warranted by facts: "Natural, not mechanical, contact, is the prevailing order, and affords separation where separation is most needed, and contact where contact is most needed." This is a typical, not a common case. Not more than one patient in fifty, who come to us with decayed teeth, have had their teeth in mechanical contact. They are in natural contact. And yet you say the teeth of these forty-nine out of fifty "afford separation where separation is most needed, and contact where contact is most needed." Why then do these so often decay?—so much oftener than when isolated?

5th. As proof of our statement that "separation, not contact, promotes longevity of the teeth," we did not cite only a simple instance, but we said, "We have attributed the continual soundness of our own teeth to their natural separation; *so that*, during the thirty years of our dental practice our attention has been called to this coincidence in the teeth of others. We do not recall an exception to the rule that separation, not contact, promotes the longevity of the teeth."

6th. But we will go farther and assert: Where artificial separation is produced even by judicious fileing, there will be less decay than in many cases of contact. I know an old gentleman who had most of his teeth separated by a fine separating file when he was a young man, and who has continued to keep them separated by such a file. He has lost, I think, but two teeth, besides his wisdom teeth, and has not had a tooth filled since the first separation. We have separated the front

teeth of many of our young patients from the inside by a three-cornered pyramidal bit in the engine,—after Dr. Bonwill's method,—making a V-shaped separation with the point of the V toward the front and toward the grinding surface of the teeth so as to make contact there only. We have thus obliterated many incipient decays, and left the teeth in better condition to resist future decay, without any evidence of our work being in sight.

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### "CONTACT OF TEETH."

H. B. VAN DORN.

In the September ITEMS, J. T. Codman is quoted as saying,  
 \* \* \* "I do not think, in the city of New York, any old man can be found with a good set of teeth unless those teeth are in contact."

The editor's deductions are undoubtedly correct in the premises; for the proposition that the contact of adjoining teeth is conducive to their welfare cannot be admitted. Experience and close observation impresses the fact on us that a natural separation certainly tends to the soundness and longevity of the organs of mastication. But to give the gentleman quoted the benefit of a doubt, is it not barely possible he intended to convey the meaning of contact between the upper and lower teeth, or *occlusion*? On this hypothesis his assertion might be accepted, for it will be conceded that mal-occlusion is exceedingly detrimental to the teeth; and it is a well-known fact that the loss of the lower molars, for instance, will entail further trouble and disaster on the apposing teeth which can no longer come in *contact* with their antagonists. Hence, we may infer that if any old man can be found who is the happy possessor of a good set of teeth, those teeth will be so situated that they will come in *contact* when the mouth is closed; in other words, the occlusion will be perfect.

It may be remarked, in passing, that a *good* set of teeth is not necessarily a *perfect* set—none missing—but simply teeth in a sound condition, be they more or less numerous.

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**Keep the Instruments Clean.**—Don't all speak at once, but let us hear from a limited number of dentists as to *how* they cleanse their instruments after they have been used. Obviously it would not be healthful to the interests of the profession to have *all* dentists give an honest report on this subject. If the reports that we hear now and then from patients are worth anything there is need of ventilation on this subject.—GEO. F. EAMES, M. D., Boston.

Immediately after each operation our assistant removes *all* soiled instruments from the table, and after cleansing them with water plunges them into a disinfecting bath of hydronaphthol (1 to 1,100 water) which is kept convenient for this purpose. They are then removed, thoroughly wiped and returned to their proper places in the operating case.—*Ed. Archives.*

## A THIEF IS A THIEF, AND NO OTHER NAME FITS HIM.

*Who steals my purse steals trash. But he that filches from me my good name, robs me of that which not enriches him, and makes me poor indeed.—Shakespeare.*

Under the caption of "Bogus Amalgam," *The Dental Review* for July prints a communication from Dr. P. J. Kester, of Chicago, detailing his experience with a cheap amalgam, which, while the doctor does not say so, was doubtless the production of some one of the shysters who for the past few years under the thin guise of working in their behalf against monopoly, etc., have excited the prejudice and credulity of many members of the dental profession, and thereby succeeded in loading them down with immeasurable quantities of their worthless compounds. True, these self-styled philanthropists are too sharp to pretend that their productions are *genuine*, but they do claim that they are *all* made by formulas resulting from *expert* analysis of the several reputable and established brands now on the market, and consequently containing the same elements and possessing the same meritorious qualities. This claim alone ought to be sufficient to damn them in the eyes of every intelligent conscientious dentist in the world. No man can expect to succeed in life by tearing down his neighbor, and no man of honest purpose will attempt it, and if he should, certainly no right minded person can find excuse for aiding him in it. Every one in this country enjoys the privilege of inventing, manufacturing or vending any article he may choose, so long as it does not interfere with the personal or public safety, but in so doing, he must pay proper regard to the rights of others or suffer the consequences. If, as these so called *experts* claim, they are so proficient in their knowledge of metallurgy, and so interested in protecting the dental profession from extortion, why is it they do not make a compound of their own and place it on the market under their own name and let it rise or fall on its merits as those they pretend to imitate have done? The answer is certainly plain enough to the least observing mind: their claims are false, they have neither the standing nor ability to do so, and their only chance for recognition is by trespassing on the merits of others. There is no middle ground to honesty; a man that will steal is a thief, and any man or set of men that will without authority, use the well earned reputation of others as a means of profit to themselves will steal, and it is only a question of time when those who by patronage or endorsements encourage them in the nefarious practice will fall victims. A thief is a thief, and no other name fits him; let him meet with the contempt and scorn of honest men everywhere.—Editorial in *Western Dental Journal*.

## OUR DENTAL SOCIETIES.

DR. PARSON SHAW, OF ENGLAND.

As no man can be a real dentist who is not a good mechanic, so the only way to learn mechanics is by seeing the work done, and then doing it yourself; and a Dental Society is the very medium for showing improved ways by practical demonstrations. Papers on various subjects are desirable, but I think our chief object should be to show each other better ways of doing practical things. "But," some one may say, as thousands have said before, "why shall I tell any one else what has cost me so much time and money to learn?" I have always observed that the men who talk that way have not much to tell. But, admitting that they have a good stock of knowledge, I ask what right has any man to make a monopoly of it? No one can live for himself. Like all our possessions, knowledge is a trust held for the good of others; but even to the most selfish man who has no moral considerations, there are reasons why we should meet together and tell all we know. In the first place, the telling of it strengthens our knowledge of it; and what is foolish in our views gets exposed in discussion. Again, If I am a member of a society in which there are ninety-nine others who tell all they know to me, and I tell them what I know in return, I get ninety-nine times as much as I part with. Though it is sickening to hear men talk of knowledge as the privilege of a class, we must not be too severe on them, for it is the remains of a system fast decaying. In a no distant past the cloister and the cell were the chosen homes of learning, and in these obscure places it was dealt out to the favored few; and even yet, throughout Europe, superstition and the spirit of privilege still lingers round the schoolhouse, and it is as troublesome as the ghost of Hamlet's father. It is a modern idea that education should be universal. The result of free education in America has produced one curious result. Instead of houses of learning being in obscure localities, away from the ordinary haunts of men, they are more likely to be set on a hill, to be seen of all the world. This must be one of those subtle outcomes of the subjective influences, which will continue to puzzle men till they learn that *all* the kingdoms are within them; and that it is not the objective and uncontrollable but the subjective and controllable influences which fashion the destiny of mankind. As we have entered on an era when higher and broader views of education prevail, a young and rapidly advancing profession like ours should be in the front rank of modern ideas. We hear a great deal about elevating the profession, and all are agreed as to its importance; the only question being how it is to be done. A gentleman who is the representative of views different to mine on this question, once said he did not think purely



scientific dental societies were of much use, but that we required an organization by means of which the public can be instructed that dentistry is not only a profession, but one possessing culture and other attainments. Such views as these presuppose that we know enough already (a notion that is fatal to all progress) and what is required is to advertise the fact to a dull public that cannot find it out in any other way.

DR. WELCH:—The directions for using your gold and platina alloy read, "Use as little mercury as will make a stiff plastic filling; then, without washing, hasten to the cavity."

Dr. X. removes the surplus mercury by squeezing in a piece of chamois skin with his thumb and fore-finger, while I use a pair of pincers for squeezing out the mercury, which he contends is not correct. Who is right? Respectfully, C. B. L., San Francisco.

There are "many men of many minds." *Our* method is to use only a sufficiency. As the gold is the quickest to unite with the amalgam, in having superfluous mercury to squeeze out you remove more gold with the mercury than silver. Sublimate such mercury, and see if you have not gold left (though the color will not be there till treated with nitric acid).

As the platina is the slowest to set, if you make your mix excessively dry as by using pincers, you do not leave enough mercury to supply the platina. A little experience will soon show how much mercury should be used so that none need be removed. It is the united setting of the three metals which gives it its extreme hardness. Hot instruments are of great use, especially in finishing.—ED. ITEMS.

### IS OXYPHOSPHATE INJURIOUS?

You question the fact of oxyphosphate injuring pulps and ask how can it? and state that "in the chemical combination *both* are neutralized." Not so; there is always an excess of the acid, else it (the mixture) would be too stiff to work. It is not possible to grade the quantities of each so that *exactly* the right proportion of acid is found. The chemical combination leaves some *free acid* always, and it is this which does the mischief. Anybody doubting this, let him try mixing the chemical equivalents of water and anhydrous plaster of paris, and see the result. Some surplus water must be added, which makes the cast feel so light when dried out. I have seen too many pulps die under zinc phosphate to doubt the clinical fact.—J. B. HODGKIN.

Yes, there is acid remaining just as there is in bones and teeth. As you say, the oxyphosphate would crumble without it. But, my friend, does the acid in bones cause them to dissolve? it is the binding power of this cement. When we spoke of the acid and the alkali of a good oxyphosphate being neutralized we did not mean to imply that either of them were destroyed. But, if you have a zinc phosphate that, on hardening, retains *superficial* acid, so that on taking a piece in your mouth, you will taste it, that is a proof of its poverty,—it will be quickly dissolved by the saliva. A good phosphate not only does not injure the teeth, but it is the best preservative we have.—ED. ITEMS.

## A CHEAP ARTIFICIAL CROWN.

A. W. M'CANDLESS, D.D.S., DAVENPORT, IOWA.

An ordinary plain tooth suitable for the case in hand is selected and fitted to the root, which has been previously prepared by cutting it quite a little above the margin of the gum. The tooth is then backed with platina, which should be allowed to extend down below the incising edge of the tooth.

A platina wire, 18 gauge, and about  $1\frac{1}{2}$  inches in length, is laid with the center over the pins of the tooth, bent down round the outside of the pins and up between them, thus forming a loop securely holding the pins. The ends of the wire are now twisted together, forming a pivot of the very best shape for secure fastening in the root. Enough cement is used to simply catch the end of the pivot when the artificial crown is in place.

When the cement is sufficiently hard to hold the pivot firmly, fill the remainder of the root with amalgam, which must also extend over the entire surface of the backing. Thus the metals all become thoroughly amalgamated into one solid mass, making a secure permanent operation, leaving no cement exposed to the fluids of the mouth to become disintegrated.

I have put on many of these crowns where any other crown seemed impracticable and impossible on account of the poor condition of the roots.

I recently attached a cuspid crown of this kind to a bicuspid root that seemed almost worthless, as there was little left of it, the crown having been absent for so long that the lower bicuspid came almost to the gum surrounding the upper root. The shape of the root can well be imagined, being quite depressed in the center, so that it would be impossible to perfectly ferrule it, whereas the amalgam could be thoroughly adapted to it.

This being a first bicuspid and my patient a young lady with otherwise pretty teeth, of course the adaptation of a natural looking crown in such a position was a gratification to my patient and myself.  
—*Archives.*

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**Nomenclature.**—We are all aware of the embarrassment which at times overtakes us in the endeavor exactly to express what the mind has conceived. But in the majority of cases this arises, not from the barrenness of language, not from the paucity of terms, but from the multiplication of definitions, and the redundancy of names for the same thing. In the examination of an object, each of us sees some special phase or characteristic, and to that aspect as presented we desire to give a definite name. This special feature may be clear to us,

without having any meaning to the rest of the world, because they do not see it as we do. Our nomenclature is loaded with verbiage and confusion ensues.

Another source of perplexity arises from the fact that many of us are ambitious of using extremely technical language. We are fond of fire-new words and of high-sounding terms. We are anxious to employ the latest invented phrase, and some of us seem ambitious to coin jaw-breakers, and thus get the start of every one else. I am sorry to see that there are no more "mechanical dentists." All are practicing "prosthetic" dentistry, and the good old term is relegated to the past. Every year our vocabulary is enlarged, and new technical terms are added. One has been sprung on us lately, and henceforth "metabolism" must take its place among us. What is the difficulty with the good old word "digestion?" In what respect is the new term better? It is this inventing of three or four words for one idea that brings confusion. The reform in our nomenclature should be toward simplicity, and not the endeavor to introduce yet more nominations where we already have sufficient.—*W. C. Barrett.*

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**The Loss of the First Permanent Molar.**—The sixth-year molar, standing at the bottom of the upper arch, viewed horizontally, and being an independent tooth in its formation, having a germ separate and apart from all the other twenty-eight, and standing as the support of the two jaws during the process of the development of the permanent teeth and the shedding of the deciduous ones, occupies such a position that if it is removed the jaws approximate, and the nose and chin approximate to a greater extent than would follow the extraction of any other four teeth, or any other six teeth in the mouth. The extraction of those teeth invariably, if my observation is correct, detracts from the strength and nobility and grandeur of the human countenance. I can look around this room now and see gentlemen who have lost their sixth-year molars. Not that it can always be detected, but in a great many instances it can be; and a man's nobility and force and strength are in appearance diminished by the loss of those teeth. Dr. Kingsley says, "Look at yourself." Well, I am looking at myself. On the right side I have lost two teeth. I am lame, and have been for twenty-five years. On my left side I was lame, where one of my confrères, now gone to heaven, used his file or chisel. For a year and a half I remembered him, till the tooth was contoured.

That abundant provision has been made for mastication, even with the loss of some of our teeth, may be true, but I should not put such stress on "abundant." Nature does assist a man to get along even with the loss of a considerable portion of his anatomy. Indeed, it is

reported that the patient survived when a certain eminent surgeon had completed some operations so extensive that his assistant said to him, "Which part shall I put back to bed, sir?" A man *can* live without legs or arms, and so he can live with store teeth; not even artificial ones, but false teeth; but is he *best* in that condition?—*Dr. Bogue.*

### SECRET OF SUCCESS.

Each of us has his special label for a particular position, and by it we steadily and regularly, even though sometimes struggling against it ourselves, or though struggled against by others, fall into our appropriate places. Neither can we attribute this all to a fatal necessity. We are not blindfolded, shackled, manacled and led captive by an inexorable fate or irresistible power, except as our condition is necessarily determined by previous causes, which are themselves mostly in our power, or in the power of those who have the controlling influence of our early years, fraught with the conditions of a future necessity.

The world generally pushes a man the way he makes up his mind to go. If going upward is his motto, it pushes him up. If going downward it pushes him down, and that very rapidly, gravitation always supporting the decline.

But men, if they are qualified, and have that merit that is necessary to sustain their chosen profession, will at last, through perseverance, reach the goal of their ambition to which they are entitled; and those who are not qualified and have not the merit, will be ejected with contempt and derision.

But it is no small evil that the avenues to fame should be blocked by a swarm of noisy, pushing, elbowing pretenders, who, though they will not ultimately be able to enter themselves, hinder others who have by their perseverance and industry a right to enter.

Some men of talent, however, turn away in disgust from pursuits in which success appears to bear no proportion to defeat. Yet there are some who have sufficient confidence in their own talents, and sufficient elevation of mind to wait with patience while dunce after dunce presses before them.

But let me admonish the younger members of our profession of this fact—that success is impossible without labor. A fortune is not made in a day; neither is a reputation made without qualification and industry. Newton said that "all he had ever accomplished was the result of industry," but it was his genius that made him industrious. So with us in our profession; ability and willingness to labor are the two great conditions of success. "And the degree of estimation in which any profession is held, becomes the standard of the estimation in which the professors hold themselves."—J. H. GRANT, Palestine.

## A NEW ALLOY.

A new alloy has been discovered by Herr Reith, of Bockenheim, which is said to practically resist the attack of most acids and alkaline solutions. Its composition is as follows: Copper, 15 parts; tin,  $\frac{3}{4}$  parts; lead,  $\frac{1}{8}$  part; antimony, 1 part. This alloy is, therefore, a bronze with the addition of lead and antimony. The inventor claims that it can be very advantageously used in the laboratory to replace vessels or fittings of ebonite, vulcanite, or porcelain.

**Editing.**—"Some people estimate the ability of a periodical and the talent of its editors by the quantity of its original matter. It is comparatively an easy task for a frothy writer to string out a column of words on any and all subjects. His ideas may flow in one weak, washy, everlasting flood, and his command of the language may enable him to string them together like bunches of onions, and yet his paper may be but a meagre and poor concern. Indeed, the mere writing part of editing a paper is a small portion of the work. The care and the time employed in selecting is more important, and the fact of a good editor is better shown by his selections than anything else; and that, we know, is half the battle. An editor ought to be estimated, and his labor understood and appreciated by the general conduct of his paper—its tone, its uniform, consistent course, aims, manliness, dignity, and propriety."—*Courier Journal*.

**Sensitiveness of Enamel.**—I would like to object to the statement that the enamel is destitute of sensibility, and that it simply serves as a shield for the more complicated, animated and vitalized structure of the dentine. Few dentists to-day will maintain that the enamel is destitute of sensibility. From what I have felt in my own teeth, and what I have seen under the microscope, I must object to the statement that the enamel is less vitalized and less complicated in structure than the dentine. It is very complicated.—*Carl Heintzman*.

**A German** had run up a large doctor's bill and called to see the physician concerning it, whereupon the following conversation ensued:

"Goot mornin', doctor."

"Good morning, Mr. Mosenthal. How is your family?"

"Pretty vell; I gome to ask sometings aboutt mein bill."

"Yes?" with animation.

"I don'd haf got mooch money. I vants to know vill you tage id out in der trade?"

"I guess we can arrange that," cheerfully; "what's your business?"

"Vell—I blay me a leedle on dot trombone; undt I serenadt you more as twendy times."

## THE LIFE OF THE ENAMEL.

PROF. CARL HEITZMANN, NEW YORK.

Respecting the structure of the enamel, the notion has prevailed that it is composed of prisms running longitudinally and obliquely with the axis of the tooth, that these enamel prisms lie close against and in contact with each other, there being no interstices between them. Dr. Bodecker proved the existence of narrow interstices between the enamel fibers of living material; about the same as those in the dentine, only very much smaller. The enamel fibrils which run between the enamel prisms are extremely delicate to be sure, but they can be seen by the application of chloride of gold, and in temporary teeth even without the use of any re-agent. The younger the teeth the better you can see the course of the enamel fibrils. Dr. Bödecker has also shown that these delicate enamel fibrils send out off-shoots toward the prisms, and that the latter are pervaded by a delicate network, much the same as the dentine. In all probability the enamel is traversed by living substance the same as the dentine. From the moment we become convinced that the enamel is a live tissue all the phenomena mentioned, the sensation which the seed of the raspberry or a delicate hair will produce, become explicable, we are at once in a position to understand that a tissue which is alive and traversed by living substance is endowed with properties of sensation. As we now know that the fibers that pervade the enamel and dentine are very probably in direct connection with the nerves present in the pulp, there is no difficulty in understanding the transmission of sensation from the periphery of the tooth to its center.

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**Our Dental Colleges.**—The growth of the American Dental Association and of the local bodies from which it took its origin, is not discouraging. Those who were here at the beginning ought to be happy over the spread of the means of teaching. It is well to have old schools; well to have new schools: but the teaching will not avail if the officers and teachers are not inspired with love of truth. How many colleges had we at the beginning of this association, and how many have we now? Do we owe the great increase in numbers to any one thing? We owe it to the inspiration of necessity. But the trouble is the colleges assume to themselves all the virtues to be attained. This is not the way to learn. We must hold ourselves ready to absorb every new truth. Too often individual ambition fills the chairs in the colleges instead of seeking men fit to fill and occupy them. A man is fitted for the duties of life just as a child is, by the absorption of the truth as it is presented to him.—W. H. ATKINSON.

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DYING words of Charles Kingsley—"How beautiful God is!"

## AFTER-PAIN IN EXTRACTING WISDOM TEETH.

W. S. B's "information wanted," in the October ITEMS, concerning after-pains in the extracting of wisdom teeth, reminds me that in similar cases of the extraction of lower wisdom teeth, two extractions at different times for the same person, were attended with quite severe after-pain for eight or ten days; also the rather difficult removal of a normal under wisdom tooth, was immediately followed by partial paralysis, and numbness of the lower part of the face on that side from the second bicuspid, forward to the median line, which lasted some two weeks, but gradually wore away.

In this gentleman's case, I presume there was some injury or irritation of the inferior dental nerve, perhaps where it enters the posterior mental foramen. Continued pain follows the extraction of the lower wisdom oftener than any other teeth.

I have had similar trouble, also, in two attempted removals of upper wisdom teeth. Without unusual force I have had the whole socket of the tooth, including the tuberosity, break away from the jaw, and, with the tooth imbedded in it, all had to be dissected from the soft parts. In one case considerable discoloration followed extending to the outside of the face.

H. A. ROBINSON.

Foxcroft, Me.

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 WHO CAN ANSWER?

DR. HASKELL:

Dear Sir:—The pleasure and profit I have derived from your writings urge me to express to you my deep regret for the loss of your eye. Still I firmly believe that you can see more with one eye than the most of us can with two.

If you can spare the time I would like to know what you know of what to me is a curious thing, that I saw a few days ago. I gave 4 or 5 oz. of gold fillings to a native here to make into plate. It turned out brittle. We worked at it a day and a-half in vain, using nitre and corrosive sublimate in considerable quantities. At last he turned out a beautiful plate tough and elastic, and of good color, by using *hen-dung*. Now I want to know if you ever heard of such a thing and what is there in *hen-dung* that could possibly produce such a result. An answer would oblige me. If I can do anything for you it will give me pleasure for I owe you much in the past, and expect to increase my obligation and gratitude from your book announced in ITEMS, which I have ordered to be sent as soon as published. With highest respect and esteem, I remain your obedient servant,

Merida, Yucatan, Mexico.

J. M. GILKEY.

### A METHOD OF MAKING AN ALL GOLD CROWN.

DR. LOUIS P. DOTTERER, CHARLESTON, S. C.

Take a band of plate gold, 28 gauge, 22-k. fine, wide enough to extend from the cervical border to the cusp. If the root is broken or decayed, allow accordingly. After soldering and fitting accurately to cervical border, grind off the points touched by the antagonizing tooth. This will leave the buccal and palatal walls perpendicular. To overcome this and make the work more artistic, these walls should be contoured by cutting several V-shaped spaces and joining the edges.

Lay a piece of pure gold plate, 28 gauge, on this, and get the patient to close the jaws—this will give an articulation—bend over the lapping edges of the cap, and retain to the band by a piece of binding wire.

Invest in plaster and marble dust, covering the cervical edge of the band to protect it from the flame, and flow on the inside 20-k. gold solder sufficient to stiffen the cap and unite all edges.

Grind off surplus with a corundum stone, and polish in the usual way. Molars and bicuspid too frail or too tedious to fill can thus be preserved and made serviceable.

The Knapp blow-pipe is invaluable in this work, and the crown, as completed, should be set with an oxyphosphate.—*Archives*.

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### DR. GEORGE WATT.

We with thousands of others have occasion for thankfulness and even rejoicing in the fact, that our friend and brother, Dr. Watt, finds himself to-day in better health than for several years.

His health and strength have been so feeble that it has been a marvel to his friends that he could accomplish so much in journalistic work and do it so well; it has called forth the oft repeated remark, "It is a notable case of giant will-power dominating exceedingly adverse circumstances and conditions."

In a letter just received from him he remarks, "I'm a boy again." We hope and pray for many years of good health and usefulness. It has always been a wonder to us why our brother suffered so much. Perhaps we will know sometime.—*Dental Register*.

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**A Class for Dentists.**—Many men who have not at the commencement of their career had the opportunities that college students now have would be glad to be able to perfect themselves in branches in which they feel a lack. But the college curriculum as now arranged is only for beginners, so that there is no place for that class just referred to. Might we not have means adopted which would permit these men to enlarge their attainments?—J. TAFT.



## WHAT IS "RABIES?"

"The patient's death was caused by Rabies," said the physician in court in answer to council.

What is "Rabies?" asked the council.

"Rabies is caused by a germ."

What is a germ?

"A germ is a kind of plasma or fibrin; it is exactly like the anemone sea-fish; it is something, and yet it is nothing; you can't define it, except it is known in stagnant water as Fluegge's bacillus fluorescens putidus. but when pathological it may be the staphylococcus pyogenes aureus, or the bacillus typhosus or bacillus pneumoniæ, though we have the bacillus mycoides in cholera times, and the bacillus anthracis is quite common."

Now we understand you perfectly, said the lawyer.

## CHEEK.

MR. A. D. PENNEY:—Kind Sir: I have a whole set of false teeth and a half. The half set is temporary, and if you will clean my upper teeth and fill what needs to be filled, and make me a lower set, I will give you my false teeth, and you oblige me in answering.

## ED. ITEMS OF INTEREST:

I notice there seems to be a general difficulty with the profession in filling with gold a round or bullet-mold shaped cavity. I use largely crystal gold, never making retaining pits or grooves. I touch the deep recess or bottom of the cavity with a varnish composed of equal parts sandarac and copal, dissolved in alcohol, let it get sticky, then pack my gold on it; there will be no slipping or rolling of the gold. It also acts as a non-conductor; the method I believe to be the most saving to servical edges.

El Paso, Texas.

H. L. BINGHAM.

In the Polytechnic College, Boston, seventy-five per cent of the students have positions engaged before they are through with their studies; and a boy from the manual training school of Chicago, who had to work his way through the school, could construct a steam engine at eighteen, and he left there to take a position at \$2000 salary.—J. N. CROUSE.

TOOTH IMPLANTING was very skilfully performed by Dr. W. B. Pomeroy, of Washington, D. C., on one of his lady patients recently. The operation took just thirty-five minutes, and, when performed, persons examining could not tell which was the implanted tooth.

### HOW OUR DENTAL STUDENTS SHOULD BE EDUCATED.

Science is the outgrowth of reason.—To attain science, the reasoning powers must be developed. Colborne's "Arithmetic," which marked a new era in the study of mathematics, was the outcome of its author's recognition of the inherent *why* in every student's composition. It is not enough to deal with students ready to enter our offices and colleges. We should encourage the production of a class qualified by education and training, and especially by their ability to ask and answer the question why, to enter on the scientific study of dentistry. The great trouble with the present system is not that the course is too classical or too scientific, but that it is a cramming process wherein the practical application is entirely left out.—W. B. KNAPP.

**Difference among Dental Students.**—We find some men who would be glad to have all the advantages available; others who want to apply themselves just as little as will permit them to pass. We find perhaps in the palace of the rich, a son who spurns his opportunities; in a court hard by is a poor widow's son who longs for an education that seems beyond his reach. The one may become an outlaw, or at least a nothing; the other occupies a mediocre position because the obstacles in his way were such that he could not rise above them. In dental education we find men who can't afford to stay at college as long as they would like to. We have two courses of seven months each in our college, but we lose students who go to other schools because they can get through in less time. Broad culture is a grand thing; but after all it is the narrow-edged man who makes his way in the world. We would like to have all receive a broad culture, but some are not fit, not adapted to receive it; nor is it a necessity. In our examinations we find men who excell in theory but who do not have practice in their fingers. Others come with little education who may make the best operators.—*E. T. Darby.*

**The Effect of Diet on Teeth.**—Some years ago I was dining with Dr. Abbott, in Berlin. He said to me, "The teeth of the German nobility are singularly like American teeth; I can whittle most of them right down." The bread they eat there is peculiarly white and nice. Shortly after that, when I was roaming around Germany, my driver pulled out from under the seat a loaf of black bread that they call "pumpernickel," cut off with his jack-knife a piece and fed it to his horse, and then cut off another piece and fed himself. This man and those of his class, generally are provided with fine teeth; short, yellow, and dense. I think the difference between white bread and its concomitants and pumpernickel with its surroundings has something to do with the different conditions of teeth.

I find in Europe one class of men who have splendid teeth. The pampered class have teeth like those of the Americans; the lower class have splendid teeth like the Indians. That is perfectly correct. But there is another class that take care of their teeth and try to keep them clean, a class which is gently bred and nurtured often fed by a French cook, who also preserve their teeth.—*Dr. Bogue.*

**Capping Diseased Roots.**—We sometimes find a root of a tooth that is decayed diagonally, so that one-half of the root is decayed down to the alveolar process, and there is not sufficient surface to hold the band for a crown. Push the gum down with a piece of spunk for twenty-four hours and you can see the entire surface of the root; drill the hole as usual to receive the screw and prepare the root by cutting an *eccentric* cavity into the root, that is, make the cavity all on one side of the root that comes below the gum, then bend a platina band as you would to take the measure of the root to make a gold band; put a soft pine peg into the hole you have drilled for the screw for the crown and fill the band with amalgam round the peg; let it remain two days to harden, and you will have a good base for a Richmond crown.—*DR. J. A. ROBINSON.*

**Cutting Spaces Between the Teeth.**—I believe there are instances in which judicious cutting of the teeth is advisable; but for the comfort of the patient and the general well-being of the mouth, I know of no such generally satisfactory plan of operating as that which properly wedges teeth apart preparatory to filling proximal cavities with full restoration, and in some instances exaggeration, of contour, and if attainable, contact only of metal against metal. I have found in my own practice, as a rule, most satisfaction from this course.—*DR. C. A. BRACKETT.*

**A. New Method of Root Crowning.**—By C. S. W. Baldwin, D. D. S. He aims first to keep the secretions from between the teeth and backing, which soon become offensive. He selects a Logan crown, slightly shorter than would be used for setting without a ferrule; contour and prepare the inside of the root as for a Bonwill or any ordinary crown. Use Dr. Walter Starr's reducers to shape outside of root. Take an impression and produce in zinc or Babbitt-metal a die. Strike on lead a cover and ferrule of 22 carat gold, No. 30 gauge. Fit to festoon of gum, drill hole from lower side for pin, leaving the ragged edge above. Fill the countersunk portion in the porcelain crown with oxyphosphate, adjust to the cap and this to the root. Unite the cover to the platina pin in the crown with a little soft solder—tin and lead—then fill the root with oxyphosphate and press firmly to place.

## For Our Patients.

### THE YACHT.

With other words spell after its fashion.

The English is so easy to learn, and it is such a noble language, so rich in its variety, perspicuity, precision, an euphony, that it would speedily become the language of the world, if it was not for its orthography; in this it is the most inconsistent of all languages. Yet we do nothing to improve it, and we hoot every one who makes the slightest attempt, preferring to hobble along on a miserable alphabet with a use of it even still more miserable. Take, for instance, the way we represent the vowel sound in this word *yacht*, that is just now so much in every one's mouth, but so often mis-pronounced, because of its inconsistent spelling. It should be *yot*; but if any writer were to spell it so, he would be called an ignoramus. Yet, if *yacht* is the proper spelling, why not represent the same vowel sound in other words by the same letters? Thus:

#### THE ENGLISHMAN'S CHALLENGE.

"Ye yankeemen, I have a yacht."

A whacht? "A *yacht* that's whacht I've gacht."

Wachll, wachll!—not *yot*? "A *yacht* I've bracht

Acrachss the wachter; this dandy yacht,

The dachntless THISTLE. Nacht a placht

Of yachtsmen on the seas have cacht

Her; for she sails more nachtic knachts

An hour than all the nachty yachts

That dare o'erhachl her. She's wracht

Without a fachlt, and beats the lacht."

See here my friend, you must be tacht

*We* have a yacht. Acht nacht your yacht

To see the Volunteer? Your vachnts

Yachl out quite loudly. "Yes it wachnts

This very chance. Bring on your yacht!

This is the achful yacht I've sacht."

"Ye yankeemen, good by; your 'yot'

I've left behind me; find her cacht

Upon the yachning deep, forgacht

As *Champion*; I've the CHAMPION yacht!

I've won the cup; you've gacht the 'yot.'

You know it was a race well fachlt."

Hold! Whacht is that I hear? *Your* yacht?

Whacht a fib! *Our* Volunteer gacht

In first. Three cheers! The yankee "yot"

Knached out the jachnty, vachnting yacht,

The THISTLE!

T. B. W.

Gentlemen, is this true or not? If it is true that at this day the medical colleges and the medical profession can leave the face of the earth and dentistry go uninterrupted, is it not an independent profession?

## RUM-SELLING.

PETROLEUM V. NASBY.

One Who Knows.

Rum-selling is the only business based on purely physiological science. Drunkenness is not vice as the religionists consider it. It is not to be wondered at that they so place it, because its results are invariably vicious. The man possessed of the alcohol habit can do nothing good. Whatever is evil in him is intensified, widened, and broadened by rum. It destroys his power of making a living, and consequently he becomes a criminal or pauper. If he is lecherous, rum makes him more so, for it destroys the prudence that would keep him somewhere within lines. If he is blood-thirsty by nature, rum makes him a murderer. In short, it increases in all men the desire for doing whatever is bad, and breaks down all the safeguards of self-restraint.

It is a deadly disease. The man who accustoms himself to the use of rum is in the rapids. He diseases his stomach, and in diseasing his stomach breaks down all his will-power. He has really no appetite for liquor, but he wakes from his debauch weak, purposeless, and thoroughly miserable. He knows perfectly well that his wretched condition, mental and physical, is due to rum, and that the only cure for it is total abstinence. He knows that if he will keep away from it a single day that he will be so recovered that he will be able to abstain longer, but he is so sorely beset that he cannot resist the temptation to take "just one" to sustain him, and he takes it. He ought to know that this one will lead to another, and still another, and then, rejoicing in the temporary strength it has given him, he does not care a straw for anything, and will go on till he is in the same condition he was the night before. He should know this, for he has tried it a hundred times; but it is one of the peculiarities of a drunkard's life that he cannot tell the truth, either to himself or to any one else. Every man addicted to rum practices on himself the most absurd self-deception.

And so the poor wretch goes on. His drunks lap over from one day to the other, till stomach all gone, will-power all gone, everything that is manly all gone, he gives himself up to the appetite, and goes to the devil by the shortest road.

It is on the certainty that, the appetite once fixt, it can never be broken, that those in the liquor traffic build, and they have, in the very nature of the connection between the stomach and the mind, a very broad and wide corner-stone. They know that, with the liquor made in this day, all that is necessary for them to acquire a man's estate is to get the habit fixt on him, and they know, just as well, that to keep their trade good all that is necessary, when a customer dies, is to fasten the appetite on a fresh boy. They quite understand that the boy will graduate into a spendthrift, and, finally, a thief and a nuisance, and that they will get everything he can beg, borrow, and steal; but they take him just the same. So much beer will run through him before he dies, and that beer he will manage

somehow to pay for. He will not pay his butcher, baker, or tailor, but he does manage to pay for his liquor, and that is all the liquor-seller thinks of.

This fact in the make-up of men converts every seller of liquors into a hunter of men and boys. This fact was what changed the lager-beer of the country from three or four per cent of alcohol to twelve and fourteen. It was to make drunkards faster, to get men and boys under control quicker, to fasten them in three months instead of a year. This is what caused the adulteration of what are known as "hard liquors," and the additional strength put into malt liquors.

If this sort of devilish ingenuity in debauching mankind does not call for the intervention of the law, I know of nothing that does. Certainly this sort of thing would not be tolerated in anything else, and why it should be in this trade, the most gigantic of all the instrumentalities for the dragging down of humanity, is one of the puzzles that good men cannot solve. Possibly the enormous extent of the trade is its protection. The aspiring politicians of the country dread nothing so much as this one power. It is the Warwick in American politics. It makes and unmakes.

Rum is the source direct of 90 per cent of all the crime and pauperism of the country. To rum may be charged up the cost of the police, the criminal courts, and everything that is costly to the tax-payer. Ninety per cent of the murders are to be credited to rum, and almost every gallows-tree is rooted in a whiskey barrel. Take your jails, your poor-houses, your lunatic asylums, and all the machinery of justice and charity, figure their cost, and add it to the amount actually paid for the poison add to this the loss to the labor of the country through this one agency, and the pocket-nerve receives a very severe shock. All this has been said and written a thousand times, but it cannot be said and written too often.

Every whiskey-shop is a school of crime and a never-failing fountain of pauperism. They are stronger than the school and church, and they can pull down more effectually than the other agencies can build up.

Prohibition is a certainty in this country, and that within a very few years. Every civilized nation on earth is looking for some cure for the greatest evil that afflicts the earth. The fact that all countries are trying to "regulate" it is an admission that it is an evil, and the centuries have demonstrated that there is no sense whatever in trying to regulate an evil. Evils are to be killed, not regulated. The question of to-day is not whether the individual man shall have the right to poison himself, but whether an organization shall have the right by means of a poison to demoralize mankind for profit. It is a question in which every workingman, every employer, every father, and every mother in the country has a direct interest. It is a question whether the law can be made to restrain the criminal-maker as well as the criminal, to prevent the manufacture of paupers instead of supporting paupers; in short, whether the community has the right to protect its weaker members against organized demoralization.

That communities have this right is the assertion of the prohibitionists, and who shall say that their position is not impregnable?—*North American Review.*

## *Editorial.*

### KILLING PULPLESS TEETH.

Dr. A. E. Baldwin, of Chicago, says:

"In near pulp exposure,—not mere acute pulpitis and a carious spot,—I believe the better plan is to devitalize . . . believing that the usefulness of the pulp has mainly been accomplished when the root is fully developed."

We are sorry to see the tendency of many dentists to disparage the importance of the life of a tooth. The latest phaze is this idea that "the usefulness of the pulp has mainly been accomplished when the root is fully developed."

For the first twenty years of our dental practice, and for the few years of our previous medical practice, we were great on killing the pain by killing the tooth; since then we have done all we could to save the life of diseased teeth; and the more we see as the result of this practice the more clearly we are convinced that it is the better way.

We are told by some that we do not know how many failures we have, because many patients go to other dentists for the extraction of teeth we have treated, and because an exposed pulp treated may not give trouble for sometime, and yet not be a final success. There are undoubtedly some of both classes, and there are some patients who, we regret to say, return to us for extraction; some soon and some after the lapse of a long interval.

In those families of whose teeth we have had the exclusive care for many years, we have certainly had the opportunity to know the proportion of failures to successes. Taking this class as a basis of judgment, we affirm that the large proportion of cases have been successful. "In near pulp exposure" we should be ashamed to fail one case in fifty.

There are many dentists who are equally successful. Many have published their mode of treatment, which we hope has done good, though many who fail do not believe these accounts. We have so often described our course of treatment that it is hardly necessary to repeat it.

**There are no jealousies** so burning as the jealousies of the idle; no chagrins so venomous; no hates so selfish. The idle man conducts himself as though the studious were in his way; as though the frugal were hiding what he should have; as though the industrious owed him a living. The idea that "the world owes me a living" is as pernicious as inconsistent. The man who has this for a motto is so selfish and wicked, as well as idle and profligate; he will steal or murder to avoid honest labor. The world owes no man a living who does not earn it by good honest work.

## SENSITIVE TEETH.

How shall we account for the extreme sensitiveness of some teeth? or perhaps, more properly speaking, the sensitive teeth of some persons; for it is one of the peculiarities of this feature in teeth, that, if we find one such in an arch, we generally find all to be variably of this class.

We do not refer to teeth made ordinarily sensitive by pathological conditions or by near approach of decay to the pulp, but to those teeth delicately responsive, in health, to acids sweets, or even to harsh sounds, and sometimes to the mere imagination or thought of such sounds and tastes.

Those who can sit undisturbed in the dental chair while the chisel and the saw, the drill and the bur are cutting and grinding, grating and rasping into their teeth can little appreciate what we are writing, and perhaps will turn away with a smile of incredulity. They are fortunate beings. May they ever be blest with an unconsciousness of such experiences.

What causes such extreme sensitiveness? Certainly we cannot account for it if a tooth bone is a mass of unvitalized substance, as are some other of the dermoid appendages, like the hair, the nails, and the scales of the scarf skin. The theory of some of our "authorities" that the sensitiveness is merely vibrations through the calcified portion of the tooth to the live pulp, does not answer our question. It is unphilosophical, it is contradicted by the experience of every subject of such sensitiveness, and is disproved by experiment made on such teeth.

We believe all such hyper-sensitiveness may be accounted for,

1st. By the degree of calcification of these teeth. Teeth whose calcification is very dense are not subject to such sensitiveness. Not that the mere fact of less calcification *produces* hyper-sensitiveness. If this were so, the teeth of children would be intolerably sensitive. But in some of the less calcified teeth of adults the same nerve filaments which were scattered through the soft animal tissue of the forming teeth, are now confined into well-defined tubular spaces, reaching in minute branches to the very surface, whereas in more densely calcified teeth these nerve tubes are either obliterated, or the calcified substance so impinges as to largely obliterate nerve circulation.

2d. Teeth seem to be of dual formation; and in these teeth, as the two parts converge, the union is not perfect. Why is there sometimes a minute spot in the point of the cuspid, or on the grinding surface of a bicuspid or a molar of exquisite sensitiveness? There is no decay there, not even a softening or crumbling; and yet, if you work down into this live substance, you seem to be following a seam. It



is a seam; and if the tooth is extracted, and broken longitudinally in the length of this seam it will be found leading to the pulp,—not because there is any decay, but because of imperfect calcification; and this seam will be found to divide the tooth to a variable degree into halves. This seam however will not be dry, but filled with living, imperfectly calcified tissue, and this is the secret of its extreme sensitiveness.

Both of these classes of teeth are not only sensitive to pain, but to the effects of arsenic, and other obdulling medicaments. Before recognizing this philosophy of tooth sensitiveness we sometimes applied arsenic, and though we were sure of obliterating sensitiveness, we sometimes, though the decay was slight, and perhaps not apparent, we obliterated the life of the tooth also.

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**The Importance of Electricity** in vegetable and animal life is seen in the fact that respired oxygen will not sustain life, even though it be deprived of its carbon. But if it is subjected to the action of electricity, it is at once possessed with the wonderful property of sustaining life. So in the atmosphere, the mere presence of oxygen is not enough. How drowsy we often become before a thunder-storm, but after electricity has played its freaks we are wonderfully revived. What a wonderful subject this electricity is! Though we have learned more concerning it through the last twenty-five years than during the previous twenty-five centuries, we have yet much to learn; it is still a mystery.

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**Extracting Difficult Teeth.** If a tooth proves very difficult of extraction, it will be found to come much easier, twenty-four hours after considerable effort has been made to dislodge it. This first effort produces inflammation or congestion of the periosteal membrane which causes a looseness. A dentist often gets credit for extra skill by extracting with comparative ease a tooth that another has tried in vain to even loosen.

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A dram of sulphate of potash put in the water before mixing the plaster-of-paris will hasten the hardening.

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Those to whom we sent November ITEMS OF INTEREST, are respectfully invited to become subscribers for next year. We assure them our efforts will be unremitting to give them during the year their full dollar's worth of information.

## WHAT ARE YOU LABELED?

Many wander about listless, thoughtless, purposeless. Who are they? What are they made for any way? Whence are they bound? What hope is there they will ever be anything? They are certainly not labeled for any honorable service, or elevated position, or noble purpose. They are not bad enough to be labeled "villian," nor good enough to be named "saint;" they are not quite useless enough to be ticketed "tramp," nor useful enough to be known for anything distinctive. They are "nonentity;" look on their back and see if this is not their label.

Young man, at least be worthy of some label that will show you are good for something; some quality of mind or heart; some skill of hand or muscle; some thought or purpose, that shall distinguish you from others, and make you desirable to society. If you do not, you will still be labeled, for others will place one on you that will not be altogether complimentary. We fear, many who think themselves pretty smart,—boys and girls, men and women,—would be ashamed of their label, if they could read it as plainly as others can; and we fear, many who think themselves pretty good would blush to see the label others have put on them.

But it is not generally necessary for others to label us; we do it ourselves by our conduct, by our language, and by our unconscious, but inevitable, influence. Sometimes a cigarette or cigar is a conspicuous label, it puffs it out of its clouds of "foolishness," "foolishness," "foolishness." Sometimes a mere a glass of beer tells what we are and where we are going. How hard it is to hide even our heart's secrets and passions, for the very image we make in our heart we print on our face, and our inmost passions are told in our language. What we are in thoughts and feelings and spirit radiates in looks and words and acts. We may even try to play the hypocrite but we cannot hide what we are; it is written outside as our label.

Young man, be labeled as a distinctive character. Don't be ashamed of being known for something that shall distinguish your individuality,—that shall cause you to stand out from the common herd a marked man. Better be labeled "peculiar," "eccentric," or even "a crank," than a stupid, worthless "vagabond."

But bear in mind, if you would have a label worthy of your opportunities, your talents, and your aspirations, you must forge it with your own hands. Yes, more; it must be a forging of hard blows of self-denial, suffering and toil, of deep thought, thorough culture and inwrought skill. These will change your very features from expressionless placidity to speaking intelligence, from sleepy

indifference to glowing ambition, from lifeless inactivity to the beauty and nobleness of a living soul. This is the self wrought label that can carry you where friends cannot carry you, where money cannot carry you, where nothing can carry you but your own supreme efforts.

And this shall bring you into the arena of life's great conflict with such a prestige, with such an influence, with such completeness of worthy championship, that your own strong arm shall bring you victory.

What say you, Are you *properly* labeled? How would you change its language? Be thankful it is within your power to make it honorable, so that you shall be quite satisfied to have it "read and known of all men."

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### "CAN'T AFFORD IT."

We are continually meeting persons who "can't afford" substantial comforts, but we meet few who are not improvidently wasting more than these comforts would cost them.

"We and our children must dress well or loose respectability." Yes, according to our means, we should dress respectably, neatly, tidily; but examine your expenditure for flummery, foolish show and costly attire, money spent to gratify unreasonable and unreasoning pride, or to imitate others in "style." How nicely two or three hundred dollars could have been saved during the year, without the sacrifice of comfort, dignity or self-respect.

Examine your food bill, and observe how much foolish waste there is, and how much more for health sake, might better be wasted than eaten. We are not seeking to make you niggardly, but sensible, healthful, and reasonably economical, for we all know that plain wholesome food is better than the extravagant dishes often found on the table. Many fathers who are reading this advice could save two or three hundred dollars a year, and the family be better off physically as well as financially.

Then, most of us have extravagant habits. Perhaps we had better leave them unmentioned. They may be too nearly allied to idols to be spoken of without giving offense. By the by, what is the etymology of the word idol? Ask the baby just learning to talk. She has hardly learned to say *my* kitten, *my* chair. It is "I kitten," "I chair," the same as it was for grown people in the infancy of our language, and in like manner the baby speaks of that which is dearer to her than either the kitten or the chair; it is "I doll," and that is her idol. We that are older have our dolls, and they become our idols. Some of them are expensive idols too. Wife has them, husband has them. Throw them away, and you save easily another two or three hundred dollars a year, and are the richer in dignity and self-respect.

My ! how easily you can count up a thousand dollars as a single year's savings, or could if you had it in gold coin on the table. And you would be better off physically, intellectually, and socially for the saving. Yes, you could have this thousand dollars a year, besides meeting the payment of a good life insurance, and have a nice home all your own.

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#### SOUTHERN DENTAL ASSOCIATION.

The officers for the ensuing year are : President, B. H. Catching, Atlanta, Ga. ; First Vice-President, J. H. Prewitt, Madisonville, Ky. ; Second Vice President, W. N. Morrison, St. Louis, Mo. ; Third Vice-President, J. Hall Moore, Richmond, Va. ; Corresponding Secretary, J. Y. Crawford, Nashville, Tenn. ; Recording Secretary, L. P. Dotterer, Charleston, S. C. ; Treasurer, H. A. Lomrance, Athens, Ga. ; Executive Committee, Drs. Edwards and Doyle, of Louisville, Ky., and Dr. W. Daucy, Jacksonville, Fla. Next meeting, Louisville, Ky., in conjunction with the American Dental Association, 4th Tuesday in August.

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**Minnesota State Dental Association.**—Officers for this year : Prest., Dr. H. L. Cruttenden ; Vice Prest., Dr. E. H. Angle ; Recording Sec., Dr. D. W. Edwards ; Cor. Sec., Dr. L. C. Gould ; Treas., Dr. H. M. Ried.

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#### THE FIRST DISTRICT DENTAL SOCIETY OF THE STATE OF NEW YORK.

Early in the coming January the above Society proposes to hold its Nineteenth Anniversary.

To those who have attended previous meetings, under the auspices of the First District, it is hardly necessary to say that it will be in all probability, a profitable and pleasant gathering. Every opportunity will be afforded those who attend to see and hear Dentistry from a Scientific standpoint. We are creditably informed that the officers are now endeavoring to eclipse their formers efforts. We hope no liquors will be found on the table at their annual supper.

For further information see Journals for November and December.

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#### THE JOURNAL OF MORPHOLOGY.

Edited by C. O. WHITMAN, Director of the Lake Laboratory, Milwaukee, Wis., recently of the Museum of Comparative Zoology, Cambridge, Mass. Crown 8vo. Two numbers a year of 100 to 150 pages each, with from five to ten double plates. Subscription price, \$6.00 a year. Single numbers, \$3.50.

The inaccessibility of our zoological literature, scattered as it is among the various publications of so many societies and institutions, and mixed up with a mass of heterogeneous matter that has no value

for a zoologist, is notorious. Valuable papers are often delayed a year or more in reaching the workers, or, in consequence of the meagre facilities of publishing, may never appear. It has been decided, therefore, to establish a journal of animal morphology, devoted principally to embryological, anatomical, and histological subjects. Cordial promises of support have been received from many of the most eminent investigators in this department. The journal will be issued in the best style, with elaborated lithographic plates.

Contents of Number 1, Sept., 1887: 1. Prof. R. Ramsay Wright, and A. B. Macallum, of University College, Toronto, Canada. *Sphyrnura Osleri*, a contribution to American Helminthology. 2. Dr. J. S. Kingsley, editor of the *American Naturalist*. *The Development of the Compound Eyes of Crangon*. 3. Dr. William Patten, Assistant in the Lake Laboratory, Milwaukee. *Eyes of Molluscs and Arthropods*. 4. Dr. G. Baur, Assistant in Yale College Museum. *On the Phylogenetic Arrangement of the Sauropsida*. 5. C. O. Whitman, Director of the Lake Laboratory, Milwaukee. *A contribution to the History of the Germ-layers in Clepsine*. 6. Prof. E. B. Wilson, Bryn Mawr College. *The Germ-bands of Lumbricus*. 7. Dr. William Patten. Assistant in the Lake Laboratory, Milwaukee. *Studies on the Eyes of Arthropods*. 1. *Development of the Eyes of Vespa, with Observations on the Ocelli of some Insects*.

This number will contain Seven Double Lithographic Plates and one Heliotype Plate.

Ginn & Company, Publishers, Boston, New York, and Chicago.

*Power and Transmisson*, Mishawaka, Ind., is a monthly of unusual interest to those interested in mechanics. Send for a specimen and be convinced.

**American System of Dentistry.**—Compiled by Dr. Litch, published by Lea Brothers & Co., Philadelphia; III Volumes. This is the last, and embraces Dental Materia Medica, Physiology, Oral Pathology, Oral Surgery, Dental Metallurgy and Dental Jurisprudence. Of course, in each of these volumes there are some things that some dentist may think might better be left out, or that is of questionable service, or is erroneous, but there is so much that all must accept as valuable, that no dentist can afford to be without them, not only as text books, but for hard study. We shall draw from these volumes for much food for our readers.

**Lindsay & Blakiston's Physicians' Visiting List** must be of great convenience to the physician. The publishers, P. Blakiston, Son & Co., of Philadelphia, seem determined to bring that profession under obligation to them, for they are continually bringing out every class of work calculated to convenience and advance it.

## Miscellaneous.

### ALUMINUM.

Aluminum is a white metal without odor or taste, never found native but with other elements. It occurs in 195 different minerals and constitutes a large part of the solid crust of the earth. It occurs in the ruby, sapphire, turquoise, topaz, lapis lazuli, corundum, emery, gibbsite, bauxite, feldspar, slate and clay. The latter is frequently 25 per cent aluminum.

The metal aluminum has a specific gravity of 2.56 which may be increased by cold hammering to 2.67. It is therefore about one-fourth the weight of silver. It is extremely malleable and ductile. By cold hammering it may be rendered as hard as soft iron, but is softened again by heat. Its fusing point is between that of silver and zinc, but is not volatilized at a very high temperature. Its conductivity for heat and electricity is about the same as silver. It does not oxidize in air, and decomposes water only when at white heat. It is not tarnished by sulphureted hydrogen nor by sulphide of ammonia, and therefore retains its lustre better than silver. It resists nitric acid, but yields slightly to sulphuric acid, and is soluble in hydrochloric acid and also in solution of caustic potash or soda. It is highly sonorous and forms alloys with most metals, imparting to them additional strength, and the capacity to receive polish and retain it untarnished.

It has long been recognized as extremely valuable in the arts provided it could be cheaply procured. That condition appears now to have been attained. By the electric smelting method invented by the Cowles brothers and now extensively worked in this country by the Cowles Electric Smelting and Aluminum Company, aluminum alloys of iron, copper, and silver are produced on a basis of about \$3.50 per pound for the aluminum contained. The presence of small per cents of aluminum lowers the point of fusion, and increases fluidity. It also increases soundness of product and a remarkable increase in strength and incorrodability. Cast aluminum bronze has a tensile strength of 40 tons and claims run as high as 57 tons, and by official test, bronze containing eleven per cent aluminum give a tensile strength 95,000 to 119,000 pounds per square inch and an elastic limit of 70,000 to 80,000 pounds. In compression the ultimate strength varied from 150,000 to 160,000 per square inch. These qualities appear now to be well established and the extensive use of metals having such qualities is assured.

It is now announced that two competitors have appeared in the field; one claims that pure aluminum will in the near future be furnished at a price not greater than the price of copper, while the other promises that in cost it will be able to compete with iron.—*Power and Transmission.*

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### DEEP DOWN.

There have been several statements published lately in regard to deep artesian wells and other holes in the earth. The depth of those so far mentioned dwindle into insignificance when we read the following, clipped from a Michigan paper:

"The depth of the shafts of the Calumet and Hecla copper mines are as follows: The Calumet No. 1, 3,900 feet; No. 2, 3,800; No. 3, 3,400; No. 4, 3,800; No. 5, 3,400. Hecla No. 1, 3,800 feet; No. 2, 3,800 feet; No. 3, 3,300 feet.

"Talk about wells being 3,400 feet deep as at Northampton, Mass., why here is a record of shafts where men work, two of 3,400 feet, four of 3,300 feet and one of 3,900 feet.

"There is a well in Charleston, S. C., over 5,000 feet deep and one at the deep salt mines in Austria, over 8,000 feet deep, more than a mile and a half, and not yet finished when last heard from."—*Power and Transmission.*

### HOW SHALL OUR BOYS LEARN TRADES?

The *Alta-Californian* said recently: Trades unions in the United States have declared a practical boycott against the American boy. American mechanics, ignorantly hoping to benefit their condition by creating an artificial scarcity of labor, have undertaken to limit the number of those who shall know how to work. By means of their trade unions they have levied an embargo on the employment of apprentices, shutting out from the field of labor all but a most infinitesimal proportion of our American boys. The evils of this course, when the subject is properly considered, are manifest. But the trouble is that too many of our working men do not stop to think. If they did, they would see that this policy is suicidal. Its continuation will engender suffering, the greater portion of which must necessarily fall on themselves. The boys who are subjected to this restriction are, in a great proportion, the sons of the men who thus deny them the means of earning an honest living. They must live, and, to live, they must work, or follow a life of crime, or be supported by their fathers, or by others, in idleness. We do believe that the ranks of the criminal classes are being swelled by recruits from the young men whose idleness is enforced by an unjust law of the trade union. We believe that the time will soon come when all laboring men will recognize that their policy for the past has been a bad one, and that the employers engaged in the building trades in Chicago are asking no more than what is right when they demand of all employes the recognition of "the right of every father to have his son taught, and of every son to learn any lawful trade, as on a plane with his right to a knowledge of reading, writing or any other branch of learning, subject to regulation only by the laws of the land."

### PRICKLY HEAT.

Editor *Medical World*:

An elderly lady friend in Florida is most severely afflicted in the summer months, with what she calls "Prickly Heat."

All ordinary remedies give but a partial relief. If you or any brother will afford a remedy it will be a decided comfort to the patient, and greatly oblige me, one of your constant and greatly edified subscribers.

Pontiac, Mich.

JOHN P. WILSON.

[Some months since we quoted from an exchange a recommendation of sulphate of copper, ten grains to the ounce of water, used locally. We have found salicylate of soda useful, if the patient avoid the free use of fluids, and of heating food.]

## URE OF WHOOPING-COUGH

Mohn, a Norwegian physician, is reported to have been able to cure whooping-cough by means of inhalation of sulphurous anhydride. In the first instance this was done accidentally while disinfecting some rooms subsequently it was done by burning six drachms of sulphur per cubic metre of space, the bedding, etc., being exposed to its influence. After the room had been closed for four hours, ventilation was restored, and the children put to sleep in the beds impregnated with the sulphurous vapors. In the morning the cough had ceased. As there is a decided epidemic of this distressing complaint all over the country, there will be no lack of opportunities for putting this treatment to test. —*Medical Press (London)*.

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**A Good Cement** for enameled letters is made of four parts white lead and one part Indian red, mixt with copal varnish thoroughly till it retains the consistency of soft putty.

## UTILIZING NIAGARA FALLS.

The Elkhart (Ind.) *Review* says: Mr. John F. Kerns has invented a device for utilizing the water power of Niagara Falls, which is thus described:

The model of the invention is a platform a foot and a-half wide and nearly twice as long, with three upright bearings set so that by stretching an endless chain about them a triangle is formed. This chain is furnished with flat paddles that stand out from it to catch the current, which is, by means of dams or walls, thrown against its longest side. Hinges permit the paddles to feather back against the chain on the return side. One of the wheels around which the chain runs is furnished with a pulley, which gives off the power to a belt that goes ashore. It is the intention, said the inventor, to make a machine 100 feet long with steel blades ten feet high and having eight feet sweep. This, with guiding walls of masonry built in Portland cement will cost, it is thought, twelve thousand dollars. There will be little trouble from ice, as the machine will be eight feet below the surface of the water. Mr. Kerns has already disposed of the right of using his device in Erie and Niagara counties for sixty-two thousand five hundred dollars. —*Power and Transmission*.

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**Washing Clothes by the Use of Kerosene.**—My wife does her washing so easily and quickly, and finds her clothes so white and clean by the process, I think I am doing a good thing by giving it to my readers:

Into three pailsful of water shave or cut fine half-pound of good soap (a half bar, which is less, if ivory soap). When this comes to a boil, add a tablespoonful of kerosene for each pail of water and stir. Now put in your clothes, which have been previously soaked and wrung out. Boil twenty minutes. Take them out and rub specially soiled places on the wash-board. Then rinse twice and put through the wringer for the line.

There will be no smell of kerosene left on the clothes, and as most rubbing is avoided the clothes will be less injured.